THE LANCET.

VOL. II.] LONDON, SATURDAY, MAY 29, 1841. [1840-41.

COURSE OF LECTURES
ON THE
DISEASES OF THE EYE,
Delivered in 1840,
AT THE
ROYAL SCHOOL OF ANATOMY AND MEDICINE,
MANCHESTER,
By JOHN WALKER, Esq., Surgeon.
(Second Division.)

LECTURE IX.

Diseases of the Globe.

AT the termination of the last lecture, I completed my account of the various diseased conditions of the individual textures of the eye. You will recollect that I first entered upon a detailed description of the morbid states of the external tunics, and frequently pointed out the fact that all those textures,—the conjunctiva, cornea, and sclerotica,—are, in many instances, simultaneously affected with inflammation. This condition is separately described by some authors under the denomination of *external ophthalmia*. So also, I stated that, in many cases, the internal textures,—the iris, choroid, retina, and capsule of the lens,—are at the same time affected with inflammation; and this latter condition has also been separately described as *internal ophthalmia*. Having already given an ample account of these morbid conditions, both separately and in combination, it is not my intention to repeat the statements I formerly made. I shall therefore pass on to the consideration of an important affection, which is occasionally met with, in which both the external and internal textures are, at the same time, the subject of inflammatory action.

Ophthalmitis.—When the whole or the greater portion of the tunics of the globe are affected with acute inflammation, it is technically named ophthalmitis. In this condition, the symptoms common to external inflammation, such as acute conjunctivitis, with chemosis, intolerance of light, lachrymation, redness and tumefaction of the palpebræ, and opacity or even ulceration of the cornea, are accompanied with muddiness and discoloration of the iris, contracted pupil, effusion of pus into the chambers, deep-seated, pulsating pain in the eye, flashes of light, and great disturbance or even destruction of vision. In many cases, too, the cellular membrane of the orbit is much distended with effused fluid, and the eye is pushed forwards so as to occasion a degree of exophthalmia or protrusion. Under these circumstances, there is frequently great constitutional disturbance, fever, headach, and sometimes delirium.

This case constitutes one of the most severe and dangerous affections to which the eye is subject; and if the morbid action be not speedily arrested, there is reason to fear not only that vision will be destroyed, from the great tendency to suppuration, but that the organ will be permanently disfigured, and rendered either staphylomatous or become absorbed. On this account the treatment should be extremely energetic. I should say that if there be one disease of the eye which especially demands rigid antiphlogistic treatment, including free venesection and nauseating doses of tartar-emetic, it is assuredly this. After blood has been drawn from the arm to as great an extent as circumstances will allow, we must direct the application of a large number of leeches to the outer surface of the palpebræ, to be followed, if necessary, by cupping either the temple or the nape of the neck. Tartar-emetic, in one-quarter of a grain doses, should be given every two or three hours until the system is sufficiently reduced; and mercury should be subsequently administered, with a view to arrest the progress of the mischief internally.

This is the kind of treatment to be adopted, modified according to the peculiarities of the case, if we see the patient in an early stage of the disease. If this opportunity be afforded us, we shall be pretty sure to save the eye from disorganisation, although it may not be in our power to prevent vision from becoming seriously impaired. But it will not unfrequently happen, if the disease have become fairly established, and particularly if we have not seen the case at an early period of its progress, that no treatment will be of any

avail; either the cornea becomes extensively opake and the pupil obliterated, or, more commonly, suppuration takes place in the interior of the eye, and our remedies are useless.

As this disease is sometimes mistaken for purulent ophthalmia, and as its treatment is so essentially different, I shall make a few remarks on the diagnostic features of the two affections. There is a considerable resemblance in the external appearance of the eye in each; the tumefaction and redness of the palpebræ, the inflammatory condition of the conjunctiva and cornea, the state of chemosis, and the intense pain are common to each. But, in the purulent ophthalmia, there is always the one striking symptom which distinguishes it from every other affection, viz., the profuse muco-purulent discharge from the surface of the conjunctiva: this is never witnessed in ophthalmitis, although I do not assert that there is never any muco-purulent secretion in the latter affection, for sometimes a slight appearance of this kind does exist. Again, in purulent ophthalmia, the internal textures are never affected with inflammation, and consequently effusion of pus within the globe is never witnessed. The matter in purulent ophthalmia is secreted from the conjunctival surface; whilst in general inflammation of the globe, the pus is the result of morbid secretion within the chambers of the eye. When the cornea ulcerates in purulent ophthalmia, there is nothing discharged from the eye but the humors; when the same event occurs in ophthalmitis, pus is evacuated as well as the humors.

The proper discrimination of these two affections then is not a mere matter of curiosity, but one of considerable practical importance. It appears to me that the advocates of the antiphlogistic treatment of purulent ophthalmia always argue upon the presumption that they are dealing with a case much more resembling acute inflammation of the globe than one of conjunctivitis, which purulent ophthalmia is; and, as I formerly remarked, the use of the term suppurative inflammation of the eye, which is sometimes applied to purulent ophthalmia, but which would be more correctly applied to ophthalmitis, has a direct tendency to maintain the error. So that, in order to be correct as respects treatment, it is important properly to discriminate between the two affections, since the employment of the stimulant treatment in a case of ophthalmitis, or the antiphlogistic in one of purulent ophthalmia, would be equally adverse to the benefit of the patient.

Many cases of ophthalmitis, which have come under my notice, have happened in persons who had been the subject of some severe disease or injury of the eye at a former period. In these cases, probably, the diseased action had been originally of the character of which we are now speaking, for there has generally been a densely opake cornea, with an obliteration, to all appearance, of the anterior chamber, and total loss of sight; or the lens has been opake, of a greenish or yellowish colour, with the capsule adherent to the iris; and the latter structure much altered in colour and motionless, also with complete loss of vision. In this description of case, we are not so anxious about the result, as vision is already lost; but the same mode of treatment should be resorted to in order to relieve the sufferings of the patient. In some instances, where the attack is less violent, and the suppurative process not established, the disease having come on repeatedly, it may be advisable to excise a portion of the cornea and evacuate the humors, with a view to prevent a renewal of the attack in future, and to avert the danger of sympathetic inflammation of the sound eye coming on.

Ophthalmitis is most frequently witnessed after injuries inflicted on the eye; it is also occasionally a sequel of some of the more serious operations, such as that for staphyloma, extraction of cataract, and the like. When it occurs, under these circumstances, I think there is generally some faulty condition of the constitution which predisposes to it.

Suppuration of the Globe.—Secretion of pus, as we have seen, is a very frequent termination of acute inflammation of the globe. When matter forms in the interior of the eye, as a result of the severe disease of which I have just spoken, there is not that instantaneous relief experienced which so often follows that process in other textures of the body. On the contrary, if much pus be secreted, we may anticipate from the unyielding nature of the external tunics, that the sense of distention and bursting will rather increase than diminish; and it must be the business of the surgeon to make a free incision in the cornea or sclerotica, so soon as the suppurative process is fairly established, which is usually known by the appearance of matter passing through the pupil into the anterior chamber, if the cornea be sufficiently transparent to allow of its being seen. If an opening be not made for the escape of the matter, some time will elapse before a sufficient amount of ulceration of the cornea or sclerotica takes place, and the patient's sufferings will be materially prolonged. Anodyne fomentations and poultices should also be freely employed both before and after the puncture has been made; and it will be also proper to administer opium internally, in order to sooth and tranquillise the system. After suppuration, the eyeball usually sinks back into the orbit, its tunics becoming collapsed, and reduced to a mere tubercle in size.

It is a matter of some importance carefully to discriminate between a case of genuine suppuration of the eyeball, and a somewhat analogous condition; viz., the secretion of purulent matter into the anterior

chamber, the state termed *hypopion*. In this latter condition, as I before stated, it is quite unnecessary to interfere; while in the former, considerable relief may be obtained by evacuating the matter, and no injury result. In a case of hypopion, if we should decide upon opening the anterior chamber, it must be done with the utmost caution, in order to avoid injuring the iris or lens; but, in suppuration of the globe, a tolerably free incision, so as to evacuate the fluid contents, will be most likely to be beneficial.

The next morbid condition to which I must direct your attention is *hydrophthalmia*. Dropsy of the eyeball is not unfrequently witnessed. In a case of this description, the globe is much increased in size, the humors exist in much greater quantity, particularly that of the posterior chamber, which is converted into a thin, watery fluid, the hyaloid membrane being absorbed, and there is usually considerable pain and irritation from the distention of the tunics. Sometimes the globe is so much distended and enlarged, as to cause considerable irritation of the palpebræ, pushing them before it, and often protruding between them, and out of the boundary of the orbit: there is frequently, also, much congestion of the conjunctiva, and effusion into the cellular texture beneath.

The posterior chamber is more frequently affected with this disease than the anterior, but both are occasionally implicated. Vision is early impaired and often destroyed in cases of hydrophthalmia, possibly from the increased pressure to which the retina is subjected, but more probably from the diseased action which has given rise to the accumulation of fluid having extended to that tunic. For the same reason, the iris becomes paralysed, and the pupil either sluggish in its movements or dilated and motionless. Of the pathology of hydrophthalmia, however, there is but little that is satisfactory that can be stated.

If the anterior chamber be the principal seat of the affection, the iris is usually pushed backwards against the capsule of the crystalline; but if it be confined to the posterior chamber, then the iris bulges forwards against the internal surface of the cornea, and the anterior chamber is almost or altogether annihilated. In some instances, the cornea becomes opake, either from the pressure or from some morbid condition of its lining membrane, or some other portion of its texture; but generally there is no loss of its transparency, or that of the humors.

The treatment of hydrophthalmia, in its early stage, is to be conducted on the supposition that the accumulation of fluid is the result of some slow inflammatory action of the internal textures of the eye; and hence topical bleeding, either by cupping or leeching, with counter-irritation, the internal administration of mercury, and general antiphlogistic remedies, are to be recommended. If the globe continue to enlarge, notwithstanding the treatment advised, vision being destroyed, and the patient's sufferings considerable, it will be proper to attempt to relieve the distention by puncturing the eye and evacuating a portion of the fluid. This, however, is usually of but temporary service, and in many cases requires to be frequently repeated. I have known instances in which, after this had been done three or four times, the globe has been much reduced in size, and the patient experienced no further irritation. The puncture may be made either through the cornea or sclerotica, according as the anterior or posterior chamber is most affected. The best instrument for the purpose is the cornea-knife. If this operation, after repeating it a few times, be not successful in reducing the size of the globe, considerable irritation still existing, and vision being irrecoverably lost, then it will be better to perform the same operation as for staphyloma, viz., to excise a small portion of the cornea, so as to allow of the entire evacuation of the globe, and the subsequent partial absorption of its tunics.

Mr. Ware, and other writers, mention that in some cases of dropsy of the posterior chamber, the fluid has been situated between the choroid and retina, the latter membrane being displaced and collapsed, and the vitreous body absorbed. Less frequently, the fluid has been found between the sclerotica and choroid tunics. In a case which occurred some time since at the hospital, there was a considerable quantity of fluid collected between the conjunctiva and sclerotica, forming a tumour of some size all round the front of the globe, constituting a case of hydrophthalmia externa. In this instance the eye had been previously lost from an accident, the cornea had become opake, and the eyeball much shrunk; but the presence of this watery swelling gave to the eye the appearance of being more prominent than natural. The fluid, which was contained in three or four separate compartments, apparently communicating with each other, was evacuated by a puncture, but speedily collected again; afterwards the conjunctiva was dissected off, and no further secretion of the fluid took place.

I must now request your attention to the fungoid affections of the globe, some of which are of a simple, harmless nature, whilst others are decidedly malignant in their nature.

Simple Fungus.—Fungous growths occasionally arise from various parts of the eyeball, such as the conjunctiva, cornea, and sclerotica; sometimes from the iris, and at others from the orbit. When they arise from the iris, they often penetrate the cornea or sclerotica, and cause considerable irritation, and, in some cases, absorption of the eyeball. They are, in general, easily removed by the

aid of forceps and curved scissors. In some instances, when these growths are very large, excite considerable irritation, and are frequently reproduced after their removal, it becomes necessary to extirpate the entire contents of the orbit, although the disease be not of a malignant character, in order to rid the patient of the deformity, suffering, and anxiety which they occasion.

Fungus Hæmatodes.—Bleeding fungus, or soft cancer of the eye, is not unfrequently witnessed. It is most commonly noticed in children, although not confined to them. In twenty-four cases which came under the notice of Mr. Wardrop, twenty were in subjects under twelve years of age. The disease is generally confined to one eye; but Mr. Saunders relates a case in which both were thus affected; and we have recently had an opportunity of seeing a similar case in the hospital. Other parts of the body are occasionally liable to this morbid condition, but the eye is the most frequent seat of it.

Malignant fungus is believed to arise, in the first instance, from the optic nerve. The diseased growth having perforated the tunics of the eye, expands itself either upon or underneath the retina, where it is first noticed, presenting a shining, metallic appearance, somewhat resembling the *tapetum lucidum*, the blood-vessels of the retina being seen ramifying on the morbid growth in the bottom of the eye. In the first stage of the disease, this is almost the only preternatural appearance observed. As the disease advances, this luminous appearance approaches nearer to the pupil. Vision must be destroyed at a very early period of the disease, if it be not so, as is most probable, at the outset; the pupil afterwards becomes dilated and motionless, and the external tunics are observed to be in a state of considerable vascular excitement.

With the advance of the fungoid growth, the vitreous humor becomes absorbed, and the crystalline is pushed forwards against the iris, and soon becomes opake, when the morbid growth is concealed for a time; the iris also loses its brilliancy, and undergoes a change of colour. The eyeball then becomes enlarged, assuming an irregular and knobbed appearance, distended more in some parts than others; the sclerotica is thinned by absorption, ulceration of that tunic, or of the cornea, ensues, and the lens, and some portion of the fungoid mass, become protruded. When the tumour has perforated the eyeball, it rapidly increases in size, and soon projects between the lids, which are incapable of covering it; there is a considerable discharge of a bloody fluid from the surface, and its appearance is that of a dark-red fungous mass; it is of a soft consistence and medullary texture, masses of congulated blood seeming to pervade its substance; whence the term fungus hæmatodes.

In the last stage the tumour projects from the orbit, and covers a considerable portion of the cheek, frequently attaining the size of a large apple, or even a still greater magnitude. Of course, the irritation caused by the progress of such an affection must be excessive; the patient sleeps but little; the health and strength are speedily undermined and exhausted by the pain and loss of blood; and coma and convulsions ultimately close the scene.

In cases of true fungus hæmatodes, no treatment seems to be of any avail. We can do nothing but palliate by relieving inflammation, when it exists in the early stage, as by the application of a few leeches, an evaporating lotion, and the like; and in the more advanced stages of the disease, as the disease and the patient's sufferings are on the increase, by the administration of anodyne and narcotic medicines. We might be inclined, *à priori*, to suppose that the extirpation of the diseased mass, and of the whole contents of the orbit, would afford a favourable chance for the escape of the patient from a premature death; but, unfortunately, this is not the case, for many eyes thus affected have been extirpated, with the invariable result of the disease again appearing within the orbit, so that extirpation is worse than useless, and that operation is now, therefore, very generally and justly abandoned. Moreover, cases exhibiting all the phenomena of fungus hæmatodes are occasionally witnessed, in which the eye becomes atrophic, and in which no recurrence of the disease takes place.

It occasionally happens that a bright metallic appearance is observed in the bottom of the eye, after wounds or injuries, which has some resemblance to that seen in fungus hæmatodes, and for which it may, therefore, sometimes be mistaken. This condition I before alluded to as cat's-eye amaurosis. It is distinguished by its occurrence after an injury, by an absence of irritation or enlargement of the eye, and is frequently followed by atrophy.

Sometimes fungus hæmatodes has been known to commence in the optic nerve, and advance externally to the globe, between it and the walls of the orbit, and has subsequently extended to the eyeball itself. Occasionally the neighbouring glands enlarge, and are supposed to participate in the diseased action.

Melanosis Oculi.—Another malignant disease to which the eye is subject, is that termed melanosis. It is so named from the black colour of the morbid structure. It is a somewhat rare affection. Melanosis is met with in other parts of the body as well as the eye, but shows itself sooner in that organ than others. It is not likely that it commences there earlier than elsewhere; it is only more readily detected in the eye from its exposed situation, the transparency of its

textures, and the interruption occasioned to its functions by that transparency being so soon destroyed. Unlike fungus hæmatodes, it only attacks adults; at least, we have no account of its having been observed in children. In the case related by Mr. Fawdington, the disease commenced in the posterior chamber of the eye: a slate-coloured opacity was observed occupying the centre of the pupil, which was dilated and immovable; the conjunctival vessels were enlarged and varicose; and the sclerotica generally inflamed, and undergoing absorption, the dark choroid being perceptible at certain points. During the progress of the disease, the patient suffered considerable pain, which was relieved by bleeding, counter-irritation, and the usual antiphlogistic remedies. As the disease advanced, the absorption of the sclerotica increased, the morbid structure appearing to protrude through it, and pushing the choroid before it; the opacity posterior to the pupil assumed a dirty-red colour, resembling newly-organised lymph, and seemed the apex of a conical-shaped body, situated deep in the bottom of the eye. In this stage of the disease, the eye was extirpated at our Ophthalmic Institution by Mr. Wilson, whose patient the man then was. "A section of the eyeball discovered, in the situation of the vitreous humor, a black pultaceous tumour, occupying more than one-half of the interior of the globe. There were two cavities, or cells, filled with a brownish-red fluid; one situated at the side of the tumour, the other anterior to it, and behind the lens. No trace of the vitreous humor, or cells, could be discovered. The choroid was entire, and could easily be separated from the sclerotica, except at one point, towards its superior and internal part, where it ceased to be distinguishable from the general mass of the tumour. The sclerotica was here reduced to an extreme degree of tenuity, and had a split appearance. The retina was quite detached from the choroid by the interposition of the disease, and lay folded across the globe, forming a kind of septum between the black mass and the larger of the two cavities, containing the brownish-red fluid. The lens was opake, and of a yellowish hue; the capsule thickened, but partially transparent; a fold of retina covered the posterior capsule. The ciliary ligament was distinct, and some ragged portions of membrane at the margin of the lens, and posterior to the iris, which was perfect, showed a remnant of the ciliary processes. The optic nerve, where it had been divided at the time of the operation, appeared to be sound." Such is the interesting account of the dissection of the eye, as related by Mr. Wilson. The individual recovered from the operation, but unfortunately the disease developed itself in various other organs, and he died six months afterwards, worn out by hectic. For the further details of this instructive case, I refer you to Mr. Fawdington's excellent monograph on Melanosis; a work which, it is needless for me to say, contains much valuable information on the subject of which it so ably treats.

From the account I have just given, you will perceive that there are many points of difference between melanosis and fungus hæmatodes. In the latter, there is a luxuriance of growth which occasions excessive enlargement and protrusion of the eyeball, and the other contents of the orbit; whereas in melanosis the globe does not increase in size, nor is there any appearance of extreme vascularity; but, on the contrary, an almost entire absence of blood-vessels in the diseased structure.

In cases in which the eyeball has not been extirpated, ulceration of the tunics takes place, and a black fungus mass protrudes, which increases slowly, and never attains a very large size. It does not bleed, but sometimes discharges a dark, grumous fluid.

If melanosis were simply a local affection, and the eye the only organ implicated, then the removal of the morbid structure would be sufficient to eradicate it; but, as it appears, beyond all doubt, to be a constitutional disease, appearing successively in various parts of the system, the extirpation of a single organ contaminated with it, can never be attended with any but temporary and partial success. Accordingly, we find that in every well-authenticated case of melanosis, the removal of the eye has been followed by a brief respite only, the disease invariably breaking out in a short period in other and distant parts, and sometimes from the cellular membrane of the orbit from which the affected organ has been removed. So that hitherto the resources of art are valueless, except as respects soothing and relieving the sufferings of the unfortunate patient. I have certainly heard of cases of melanosis in which the eye had been extirpated, without any appearance of the disease having subsequently manifested itself in any other texture. Such, I imagine, to have been merely cases of staphyloma scleroticæ, with protrusion of the choroid, some of which have a considerable resemblance to the true melanoid disease, and for which they are sometimes mistaken.

INHALATION.

To the Editor.—Sir:—Perhaps Sir Charles Scudamore will oblige the readers of The Lancet by informing them what is the mode of administration of his remedy for tubercular phthisis.

An Old Subscriber.

CHINESE SURGERY.

DISEASES OF THE EYE.

By G. Tradescant Lay, Esq.

The following remarks were taken from a Chinese work, in six small volumes, entitled the "*Great Summary* of Surgery and Therapeutics in Diseases of the Eye." In culling from its pages what is really to the purpose, one is obliged to wade through many a puddle of metaphysical jargon, and to encounter a host of ill-defined words. Diagrams are given to illustrate the "five circles" and the "eight empty spaces" within the eye; but as these are imaginary, such diagrams puzzle without instructing: while a few plain definitions, with a figure or two of the parts which are apparent without the aid of dissection, would afford an invaluable assistance to the foreign reader, and remove many a stumbling-block which often makes him ready to throw down the book in despair.

Operation for Cataract.—The cataract-needle, or, as the Chinese author calls it, the *golden needle*, is described as having a haft of hard wood, akin to that of our pear-tree, or of the rhinoceros' horn. The length is nearly three inches, and its thickness equal to that of a bow-string: the needle is made of gold, or some amalgam of gold, that the value of the metal might guarantee the success of the operation. No figure is given of this curious instrument in the work before me; and hence I have borrowed one from a native work upon the Veterinary Art, which is mentioned in a chapter touching that important subject in "The Chinese as they are."

The needle itself is somewhat more than an inch in length. One-third of this is sunk into the eye of the haft, while the rest remains to puncture the eye of the patient; it is round and tapering, not large and sharp-edged, lest the animal spirits within the eye-ball should be injured by it. It is kept in a case made out of a goose-quill, and laid up in a square box.

Two or three days before the operation, measures are taken to quiet the air which flows in the arteries, to disperse the venous blood in even proportions, and to equalise the weakness of the bowels; that is, in plain language, to lower the patient, lest he should incur the risk of feverish excitement. As an immediate preliminary, a basin of water, fresh drawn from the well, is brought to the doctor, who, after laying the patient upon a table, and taking a seat beside him, dips his hand into the water and allows it to distil upon the eye. This shower-bath in miniature, as it is supposed, causes something like a congelation in the eye, and renders it steady: it answers the purpose of belladonna, in contracting the iris and opening the pupil.

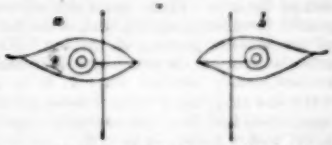
The author, in his prelude to an account of the operation itself, says, that skill and delicacy of hand must be found in the surgeon, and that, from an examination of the outer parts of the eye, he ought to conjecture, with certainty, as to what is amiss in the eye itself. He again refers to the washing mentioned in the preceding paragraph, and says it is intended to prevent a flow of blood: after this the patient is placed upon a chair (an armed one, I suppose), with his hands resting upon cushions made of cotton; two men then take hold of the patient's head, while the operator opens the eye with his finger and thumb to keep the eyelids steady, and to prevent the moving of the eyeball. He then grasps the "golden-needle" with his right hand, if he is to operate upon the right eye, and inserts it about midway between the margin of the cornea and the edge of the conjunctiva, the haft being inclined towards the bridge of the nose. The introduction of the needle must be effected very gently, *man, man*; after which the point is made to return a little towards the operator, that it may lay hold of the lens, and thrust it down or couch it into the vitreous humour. The surgeon then asks whether the patient can see the movement of his fingers, distinguish white from blue, or from any other colour. If this question be answered in the affirmative, the operator endeavours to push the lens further downwards into a region called the "place of the open country," taking care all the while not to injure the iris or aqueous humour within the "region of perfection." This being accomplished, the instrument is gradually withdrawn; the patient is not allowed to go abroad early, lest the lens should return to its place. When the left eye is to be operated upon, the surgeon must use his left hand.

Applications to the Eye.—In all questions and processes connected with this subject, it was deemed necessary to consult the calendar, in order to select a propitious day, because the *yang* and the *yin*, or masculine and feminine principles in man, are identical with those in the universe, or heaven and earth. The medicament, whether in the shape of powder, salve, or foil, is applied with an instrument made from a bone of the rhinoceros, because the bones and horns of this animal have long had great therapeutic renown among the natives of China. If foil or salve be used, they should be dipped in milk and water, rubbed till they are well subdued; if powder be employed, it should be ground fine before it is applied. The medicament is to be administered in very small quantities as the eye can bear it. No reference ought to be made to the patient in deciding whether

it should be used sparingly or with a copious hand, nor ought he to complain of pain or fear the application. If the patient be a female and dreads the operation, the surgeon must have a light hand and deal gently with the disease. After the preparation has been applied to the satisfaction of the operator, he should order the patient to shut the eye, elevate the face, and sit some time without moving the eye; he should also further counsel his patient to restrain and limit wandering thoughts, and the habit of speaking much; that is, in customary phrase, to keep himself quiet. Care must be taken that the application is not too strong; if it is, the physician will have no joy, but be filled with apprehension lest he should excite inflammation, and add to the disease. At the end of these directions the author has given a prescription, which contains, among other things not easy to identify, "*bright*" native cinnabar, lapis caliminaris, amber, pearl, or, perhaps, mother of pearl, and *genuine bear's liver*, in equal quantities. In another prescription, mercury, black lead, saltpetre, and borax, are mentioned. The author has thought proper to give special directions as to the manner in which these four ingredients are to be put together. "First take the lead and make it enter the quicksilver by grinding, then add the saltpetre and the borax in equal quantities."

The Chinese seem to value themselves much upon their skill in the use of these caustics; for a little before I left Macao, an intelligent native told me with great satisfaction of a case which had issued successfully. While Dr. Colledge had the care of the hospital at the place last named, a Chinese came to consult him about a staphyloma upon one of his eyes: the doctor told him that the only remedy was the knife. To this he refused to submit, and applied to some native, who, by the interest of a friend at a distance, procured the necessary drugs, which, in the due course of time, removed the protuberance. In what state they left the eye, whether in the possession or with the loss of sight, with an even surface or in a shrivelled mass, was not distinctly stated. My informant added, in the hybrid dialect of the Canton merchants and linguists, "Inglishman sabe outside pigeon," *i.e.* are dextrous operators; "Chinaman sabe inside pigeon," *i.e.* he has the entire monopoly of anatomical and physiological knowledge!

Removal of a Pterygium.—When applications have failed to reduce this uncomely excrescence, and it begins to encroach upon the cornea so as to endanger the sight, recourse must be had to the process of excision. If the development of this preternatural growth be small, or it has not reached the cornea so as to hurt it, adds the writer, it is better to attempt its reduction more slowly by using a caustic; but if it is not slight, the hook and the knife are called for. By way of preparation, a little alum is dissolved in warm water: into this solution a dossil of fresh wool is dipped, and applied to the pterygium with the view of making it rise up. A needle is then passed perpendicularly through it, as is represented in diagrams *a* and *b*, which



were exactly copied from the Chinese original. By this means the pterygium is lifted up, and the operator proceeds to cut it off by the knife *c*, beginning near the middle,

and advancing towards the cornea in a circular manner, as I suppose. After this, he cuts from the middle towards the corner of the eye. Great delicacy and lightness of hand are insisted upon as indispensable requisites in the surgeon: if he prefers it, he may use a pair of scissors instead of the knife. These, from their elegance, are called the hwa-tseen, or flower-scissors. Though, if we must speak the truth, the Chinese and their neighbours, the Japanese, succeed very ill in the manufacture of any kind of cutlery. In using the scissors, the operator must be careful not to wound the caruncula lachrymalis, since there is a connection between this and the heart; and hence, if blood is lost, a serious injury is inflicted. The writer seems to recommend the actual cautery, of which diagrams, on the right of the group *d* and *e*, are given.* We are not, however, favoured with any directions as to the mode of operating in this case. But the author adds, by way of supplement, that if the blood starts out in removing the pterygium, it may be stopped by a dossil of soft lint dipped in water.

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* *a* and *b* of the same group are hooks for raising the pterygium.

Actual Cautery, or Hot-needle.—In the last of the six volumes, thirteen figures are given, which represent individuals at their occupations and pastimes, or in the stately robes of office, for the purpose of exhibiting the spots where the cautery ought to be applied in diseases of the eye. These spots are situated upon the forehead, temples, back of the hand, and the anterior portion of the leg. Each particular spot has its name, and its relative situation clearly marked out. It is in the survey and mapping of these famous and important spots that the Chinese doctor expends a great deal of pains; in fact, they constitute the principal elements of his external anatomy. If the cautery cannot be applied to the part itself, the question arises, where, then, ought it to be applied? To the solution of this problem, he addresses himself with all the learning, diligence, and physiological tact he is master of. But so refined and recondite are his reasonings, and so great is the natural bebetude and tardiness of my own mind, that I seldom feel much inclination to follow him.

The following is an authentic representation of the *hair-needle*, maou-chin, or cauterising instrument: — It is about an inch and three-quarters in length, and has a point "as sharp as the trunk of a musquito." It is applied in violent nervous pains of the head, when the eyes suffer by sympathy, dimness of sight, staphyloma, nebulæ, cataract, sloughing of the cornea, &c.

PATHOLOGY OF DEATH BY DROWNING.

To the Editor of THE LANCET.

SIR:—I beg to inclose the reports of two post-mortem examinations of persons upon whose bodies inquests were held at Islington, and it will be perceived, that although immersion in water appears to have been the cause of death in both cases, the condition of the brain and its vessels was very dissimilar.

I remain, Sir, your obedient servant,

R. H. SEMPLE, Surgeon.

Islington, April 22, 1841.

Post-mortem Examination of Ann Foster, April 20th, 1839.

The above-named woman was found dead in the New River, and an inquest sat upon the body on the 22nd of April.

There were no external marks of violence, and the body was fat and in good condition.

Head.—The jugular veins were not turgid, and when an incision was made into them only a very small quantity of fluid blood issued from the wound; no blood was observed between the scalp and the skull, nor between the latter and the dura mater; but there were strong adhesions between the dura mater and skull, immediately below the vertex; this appearance was probably due to some previous attack of inflammation of the membrane. The brain did not appear congested or turgid with blood, but, on the contrary, remarkably pale; and its veins, instead of being full and gorged, as in most cases of death by suffocation, were quite inconspicuous; the brain was healthy throughout, its minute vessels not injected, and a very small quantity of serous fluid was found in the ventricles.

Chest.—On opening the chest the lungs appeared rather voluminous and filled the cavity; the pericardium contained a small quantity of serous fluid; the heart, viewed externally, appeared rather larger than its usual size. This organ was removed and examined, and a quantity of fluid blood, rather less than half a pound, flowed from the right auricle and ventricle; the left ventricle was hypertrophied in such a manner that the walls were much thickened, while the cavity was diminished in size; the aorta was considerably contracted near its origin, but there was no disease of its valves; the lungs externally appeared healthy and crepitated; the bronchial tubes contained a small quantity of frothy mucus.

Abdomen.—The liver was large, but healthy; the stomach appeared about half filled with fluid matter, and on its external surface the minute arteries were injected, indicating some inflammatory action. This organ was tied at both ends, and removed for further examination. The small intestines and the mesentery presented numerous inflammatory appearances; the glands of the mesentery were considerably enlarged. The intestines were examined internally along their whole extent, and marks of inflammation were discovered in patches in various parts, particularly in the duodenum and ileum; they contained a large quantity of semifluid matter, undergoing the natural process of digestion; the large intestines were generally healthy and filled with fæces.

The stomach and its contents were afterwards examined. About a quart of fluid matter, consisting of bread, currants, milk, &c., was removed and preserved for examination. The inner surface of the stomach was uniformly overspread by a light pink blush, such as is seen in that organ during the act of digestion. The matter adhering to the mucous membrane of the stomach was carefully scraped off, boiled with distilled water, and filtered; the tests for oxalic acid, arsenic, and corrosive sublimate, were successively applied, but without any marked result. There was no smell in the contents of the stomach indicating the presence of laudanum or prussic acid.

Post-mortem Examination of Mary Callahan, April 20th, 1841.

The above-named woman was found dead in a shallow pond near the Chalk-road, Islington, and an inquest sat upon the body on the 20th of April.

There were no external marks of violence, nor any appearance of putrefaction. The surface of the body was quite clean, having been washed previous to the examination. The eyes were half open, and the pupils in a state between dilatation and contraction. The nostrils were dry, and the mouth empty. The hands were not clenched, and the fingers were nearly straight.

Head.—A considerable quantity of fluid blood was found between the scalp and the skull, and on removing the latter a large portion flowed from the sinuses and veins of the dura mater, which exhibited great sanguineous congestion. The brain itself was excessively congested, its veins and capillaries being turgid with blood; the ventricles of the brain contained only a small quantity of serous fluid. With the exception of the congested state of the vessels, the membranes of the brain and the brain itself were perfectly healthy.

Chest.—The lungs were voluminous and filled the cavity of the chest. The right lung was partly adherent to the parietes of the chest, indicating some previous attack of pleurisy; this lung was also emphysematous at its edges. In other respects the substance of both lungs was healthy and crepitant throughout. The trachea and bronchial tubes were then examined; the former contained no fluid, but the latter, particularly towards their smaller ramifications, were filled with a soapy tenacious mucus, exactly corresponding in character with that described by authors as peculiar in the bronchial tubes of the drowned. The mucous membrane of these tubes was healthy. The heart appeared, externally, of its natural size, but the walls of the left ventricle were thickened and its cavity diminished in size. The right ventricle and auricle were of the natural size and appearance, both contained a large quantity of fluid blood, as did also the pulmonary artery. The venæ cavæ, the vena azygos, and their smaller tributary veins, were all much distended with fluid blood.

Abdomen.—On making an accidental incision into the œsophagus, that tube was seen to be filled with a clear watery fluid; the stomach and œsophagus were included in two ligatures, removed from the body, and examined. The internal membrane of these organs was perfectly healthy, and of its natural colour. The stomach contained about three ounces of clear fluid, quite destitute of smell and colour, with the exception of a minute quantity of green vegetable matter, resembling the *conferva* found in ponds. The liver was of the natural size, but its substance was firm, dense, and of a dark colour, owing to excessive congestion. The intestines were healthy, except that they exhibited a highly-congested state of their vessels.

In both these cases drowning appears to have been the cause of death, but no evidence was offered to prove that in either case violence had been committed towards the deceased, or in what manner they had come into the water, and verdicts to that effect were returned.

UTERINE HÆMORRHAGE PRECEDING DELIVERY.

To the Editor of THE LANCET.

SIR:—If the following appears to you worthy of notice, by inserting it in your widely-circulated Journal, you would much oblige, Sir, your obedient servant,

R. FORSTER WELLS, M.R.C.S.L.

1, Steward-street, Spitalfields,
April 28, 1841.

At five o'clock in the afternoon of the 21st of the present month, at the request of a practitioner of midwifery, I visited Mrs. Croley, ætat. 33, of a nervous temperament, in the ninth month of her second pregnancy, who had been seized with hæmorrhage at four o'clock in the morning of the same day, which had continued unabated up till eleven o'clock, without the supervention of labour-pains, and had recurred about half an hour previous to my seeing her.

I found her lying in the usual obstetric position; the surface of the body covered with a cold perspiration; the pulse could scarcely be felt; the countenance was deathly pale; the eyes and mouth surrounded by a dark-coloured areola; the pupils were dilated, and the tongue white and moist. The state of the bed did not indicate the loss of much blood. Upon examination I found the vagina filled with coagula, and the os uteri sufficiently dilated to admit the points of two fingers; the liquor amnii had been evacuated naturally in the early part of the day, and the vertex was presenting.

Under these circumstances I considered it impossible to attempt the operation of turning, and recommended the administration of the ergot in two-scruple doses every hour, until the mouth of the womb should be sufficiently dilated to admit the perforator, and warm brandy and water freely in the intervals. Upon seeing her again at seven o'clock two doses of the ergot in powder had been rejected, there was still an "oozing" of blood, and the general symptoms were much the same. A decoction of four drachms of ergot in six ounces of water was administered in two doses, with an interval of half an hour, with decided good effect.

At nine o'clock the uterus acting vigorously, and its mouth about two inches in

diameter, the head was freely opened, and the labour speedily terminated by the crotchet. The child, a male, was found to be rather below the average size.

There was a gradual rallying from the time the first dose of the decoction was administered, which, with the exception of the hour immediately succeeding delivery, when the vital powers appeared to flag, has increased steadily, although slowly, up to the present time, without the occurrence of a single unfavourable symptom.

On the 17th of the present month this patient had slipped down stairs, but without hurting herself, and from that time till the period at which the hæmorrhage took place, had experienced a more than usual movement of the fœtus.

I think it cannot be doubted that the hæmorrhage in this case arose from a partial separation of the placenta and membranes.

There are indications in this case both against, as well as for, the operation of craniotomy. On the one hand, the quantity of blood lost was not in itself alarming, the duration of labour not remarkably protracted, and, as the result proved, the child below the average size. But, on the other hand, there was no prospect that the uterine contractions, as induced by the ergot, would expel the child in time to save the mother; and the extreme urgency of the general symptoms called for the application of those means which promised the most speedy delivery, without considering the safety of the child.

The previous labour of this poor woman had been of three days' duration, and a very large dead child was the result.

ON THE

MORAL TREATMENT OF INSANITY.

By Wm. Stamer Stanley, Esq., M.R.C.S.L., Prescot.

The treatment of insanity being now a subject of controversy, and one which I think of the first importance to the public, inasmuch as the disease appears of late years to be decidedly on the increase, and that, notwithstanding this important fact, the public are daily more and more manifesting their antipathy to asylums of any kind, whether public or private, and taking upon themselves the serious charge of their own treatment, thereby, I believe, almost invariably lengthening the term of, if not altogether establishing the disease; and as it is a subject in which I have taken much interest, I am desirous to offer a few remarks on its moral treatment from my own experience and observation.

In the first place, then, we should understand what insanity means; and under this term, by way of brevity, I would include all classes of insanity. But here our knowledge is very limited indeed; and even in our advanced day, pathology has thrown but little light on the subject, so that we can say little more than that it is a disease of the mind, for the most part an error in judgment, consisting in false perceptions and erroneous appetites or passions, which is frequently accompanied, and may be caused by disease in some part of the body, as the brain, &c.; but as I do not mean to investigate these general principles, but merely to lay a foundation for a rational plan of treatment, I shall proceed to consider more particularly the nature of insanity.

There are two great classes of insanity, that of *mania* or *madness*, called by many the *high* or *sthenic* form; and the other, or *melancholy*, frequently called the *low* or *asthenic* form.

The symptoms of the former show an evident derangement in the physical, moral, and intellectual powers, thereby indicating that medical treatment is proper and necessary in all these cases, in order to subdue and keep within bounds any preternatural action in the system; but everything will depend upon the nature of the symptoms present, and a careful discrimination in the use of medical means is absolutely necessary. When medical treatment is required in the other form of insanity, the same observations will be applicable. I believe a great deal can be done to facilitate the cure by proper medical treatment in many cases; but I am also convinced that medicine alone will never succeed, nor is there any medicine possessed of specific virtue in the cure of this disease. The mind is the part principally and invariably affected; and although we must be ready to admit the very great sympathy existing in disease between the mind and body, yet we cannot deny that insanity does exist often without any appreciable lesion of any particular organ, and that in many cases not a trace of diseased structure can be found after death. To the mind, then, we must look and direct our utmost energies, in order to restore it to that sublime state in which an all-gracious Creator formed it, and with which we may truly be said to be but a "little lower than the angels." Man is to be considered a superior being only in so far as his mind becomes elevated, and approaches that primitive state of perfectness in which he was originally created.

The Rev. Hugh Stowell, in his sermon on "Romanism, &c.," published with some others, for charitable purposes, at Chester, very beautifully says:—"But if we compare the present with the primitive constitution of our nature, deriving from the page of inspiration all the light we can gather on the subject, we shall find that the original elements of man (however revolutionised) remain essentially the same. The change—the disastrous and deadly change—which

has passed upon them, consists not in annihilation, but depravation; not in extinction of their energy, but in alienation from their purpose. All the faculties, dispositions, and affections which we possess were possessed essentially by Adam in his purity, but they were then under the immediate influence of the Spirit of God; they were in perfect harmony with the Divine will, and were consequently holy, just, and good. Men now resemble the ruins of a splendid temple, the materials are all there, but how mournfully transformed! Instead of order, confusion; instead of beauty, deformity; instead of perfection, utter desolation." So it is; our faculties, dispositions, and affections, being in themselves originally good, it is only by their perverted use and direction that evil becomes manifest; and it is an undeniable fact, that in proportion as our intellectual and moral propensities are directed and controlled by correct and exalting principles that good may be expected to result. This is one of the first great and essential principles in phrenology—a science which, however imperfect it may be, is nevertheless calculated greatly to assist us in our moral and intellectual management, not only of the juvenile, but also of the insane. But to dilate on this subject is not necessary at present; suffice it to say, as a generally-accepted law, that our faculties can be divided into separate and distinct classes, each of which (however they may be developed or situated in the brain) must be acknowledged to be in a great measure controlled by, as well as have a control over, other faculties; and this should guide us very much in our treatment of by far the greater number of cases, there being few only in which all the faculties are disordered, except those attended with manifest disease of the physical powers of the sensorium. It is to ignorance or neglect of this law that by far the great number of cases owe their origin. Such, for instance, is a large class of the religiously insane, amongst which we may no doubt include the extraordinary case of Thomas Malloy, published in the "Dublin Medical Press," No. 94. The patient imagining "that the heinousness of his sins required the removal of certain of his offending members," actually cut off his right hand and plucked out his right eye.

Having this view before us, let us now inquire into the mode of treatment, which I think will be found eminently applicable in this greatest of all afflictions; and here it is necessary always to bear in mind that man is a being possessed not only of perceptive but reasoning, not only of moral but intellectual faculties, and accordingly we find that, no matter under what circumstances he may be placed (except that of extreme congenital idiotcy), the powers of the faculties of the mind will be manifested, and their submission to the control and direction, more or less, of the same faculties in a sane mind will be recognised; but, inasmuch as man is possessed of these faculties, so until the mind itself is annihilated, will he possess the power, more or less, of appreciating motives and actions external to him; and so, likewise, as if by instinct, will he be ready to resent any injury inflicted upon him, and will also invariably repel any forcible effort wantonly applied to convince or convert him. This is particularly evident in lunatics, whose cunning at all times greatly exceeds that of a sane person; and this we need not wonder at, when we consider that it is a general law of the animal economy that when any part loses or is deprived of its natural healthy action it becomes atrophied, and some other part takes on an increased action in order to supply its place. From this I would argue, and I think practice will be found to bear me out in it, that forcible restraint, in the way of chaining, flogging, &c., is always improper and unnecessary, except in the cases which I have mentioned above, where, from the lesion of the moral and physical powers, the conduct of the individual may endanger himself or those around him; and even then I am satisfied that a strait-waistcoat, and confining the patient in a room by himself, or securing him to the wall or bed, according as we may find such treatment beneficial, will be the most proper line of conduct. Those who are in the charge of lunatics, particularly of the class I am now speaking of, require to be extremely patient, resolute, humane, and kindly solicitous, and instead of following any fixed rule to the very letter, ought to enter into their feelings, and change from one thing to another, according as he finds them of benefit, and by every means in his power gain over their confidence, at the same time maintaining a firm authority without exercising any tyranny. Two cases just occur to my mind, which I think will show the benefit of this plan. The first I shall mention is that of a gentleman who was sent to an asylum in the County Armagh some years since. My friend, the keeper, by kindness and attention, completely gained his confidence, and he recovered with long lucid intervals; and he was so impressed with the kind and excellent treatment which he received, that whenever he felt an attack coming on he used to go to Mr. Jackson, and tell him he was come to take up his quarters for a while with him. The other is of an opposite character, and is the case of a lady who had been for some time in an asylum, and was taken from it to reside in the house of a relative totally unacquainted with such cases. She was certainly made comfortable as far as her food, &c., was concerned, but no other attention whatever paid to her, except when she became unruly, and then she was locked up (more from fear than anything else) in her room, which she would

sometimes fasten inside, and remain there for days; in short, she was treated merely as an inferior being, and the consequence was that she became progressively worse. This case also clearly shows the injury resulting from keeping such patients at home. I know another case, somewhat similar, but much worse, and of more recent occurrence, but I think enough has been said. In the first place, such patients generally have a particular aversion to their own immediate family and friends, which of course will be kept up by their constant intercourse with them, and from the feeling which remains of their connection with each other, they become less submissive, and it is far more difficult to make any impression on them, or induce them to follow that course which would be beneficial to them.

In all cases of lunacy the patients should, as early as possible, be placed under the care of those who will take an anxious interest in them, and especially in the case of melancholics. So that by carefully investigating their case, and discovering, if possible, the seat of their hallucinations, or the class of faculties affected, we may thus be enabled, by the judicious exercise of other faculties, to bring the mind into a different train of thought and reasoning, and by constant novel exercise, both mental and corporeal, by lively intercourse and amusements, and by every means inducing the patient to act and think for himself, forbearing any kind of reference to, or reasoning on, the subject of his insanity, and by a mild but determined authority in case of opposition or refusal to any reasonable commands, we may thus gradually win upon their confidence, and in a very great majority of cases restore the patients to the healthy exercise of their reason.

In conclusion, I would remark that I believe the increase of insanity very much depends on the ambition of individuals to maintain a position in society contrary to that which either their rank or abilities entitle them to; the consequence is, whether it be in the literary, religious, mercantile, or lower ranks of life, a complete overbalancing of the faculties of the mind, and the arbitrary rule of the one which had been for a long time, perhaps, striving for the mastery. A melancholy case of this kind has lately occurred to my knowledge, in which the individual was quite aware of the origin of her delusion, and more than once threatened to rid herself of such a miserable existence.

Prescot, Lancashire, May 5, 1841.

REPORT ON THE MORTALITY OF LUNATICS.

By William Farr, Esq., F.S.S.

[Read before the Statistical Society of London, 15th March, 1841.]

(Concluded from page 305.)

In determining the mean term of treatment, which was attempted in the early part of this paper, it may at first sight seem that the years of residence should have been divided by the mean of the numbers admitted (2029), and discharged (1171). This method would make 4.8 years the mean term of treatment in the six years ending 1839—(for $\frac{2029}{421} = 4.8$); and 1.9 year the mean term of treatment in 1831-3; when 920 were admitted, 362 discharged, and the years of residence were = 1248. Divide 1248 by the number discharged (362), and 3.44 years would be the given term of treatment; but even this, as the experience of the six following years evinces, is much below the truth. The errors are the same as if the division of the children under three years old by the mean number of births and deaths, or by the deaths alone, were supposed to give the expectation of life at birth; whereas the division by the deaths at that early period, though the nearest approximation of the two, gives a less number than the expectation of life in years.

Dr. Conolly ascertained the previous duration of the disorder in 191 cases (exclusive of 10 congenital cases) admitted during the year; 66 had been labouring under the disease less than six months; 26 between 6 and 12 months; 24 between 1 and 2 years; and one had been insane 39 years. The mean previous duration was 3.4 years. But, as little more than *half* the number had been insane *twelve months*, the time of admission may be represented by 1, or 1½ year.

The mean age of 213 persons at admission was 36½ years; the mean age of 195 at the time of the *first attack* of insanity was stated to be 32½ years.

The *probable future duration of insanity* is shown, by table, p. 304, to be 2½ years at the time of admission; for, in 2½ years, the 1000 cases are reduced to 509. The chances that a patient will, or will not, remain insane 2½ years, are 509 to 491, or nearly equal. Among those who remain insane half a year after admission, the probable future duration of the disease is nearly four years.

The *probability of recovery* at admission $= \frac{380}{1000} = .380$; of dying insane $= \frac{620}{1000} = .620$. Half a year after admission the probability of recovery is $\frac{347}{653} = .347$; of dying insane $\frac{653}{1000} = .653$. The numbers in juxtaposition, in columns *b* and *c*, express the respective chances of death and recovery;

thus, 5½ years after admission at Hanwell, the chances are 272 to 105 that a lunatic will *not recover*. All these probabilities depend more or less on the assumption that 88 in 310, remaining at the end of 7½ years, will ultimately recover.

The *probability of recovery, or of dying*, within any year, or years, up to 7½, is accurately shown by the table. In the first half-year the *probability of recovering* is $\frac{105}{1000} = .108$; the probability of recovering in 3½ years is $\frac{360-107}{1000} = \frac{253}{1000} = .253$. Out of 1000 cases, 253 recover in that time; hence .253 is the probability of recovery. The *probability of dying* in the first half-year is $= \frac{109}{1000} = .109$; in the two years following $\frac{611-379}{783} = \frac{232}{783} = .180$.

From a table of this kind the lives of lunatics can be insured; and, from the present table, they may be insured for a limited number of years.

The table is an instrument by which the effects of treatment on the mortality—the number of recoveries—and the duration of all diseases, can be accurately measured. It enables us to compare two or three different plans of treatment, and to determine their effects upon the principal results at which all medical treatment aims—the reduction of the mortality, and of the duration of the disease. Thus, if 139 of 509 lunatics that have been 2½ years in Hanwell will recover under the present treatment, and 200 recover under any new mode of treatment that may be introduced, the advantages of the latter would be obvious; and still more so, if the *probable duration* of the disease were reduced from 10 to 5, or 2, years.

The returns from the licensed houses do not state the ages; and the ages of few lunatics are given in the interesting Report of Dr. Conolly. From other observations it is known generally that the mortality increases, and that the probability of recovery declines as age advances.

The sex, age, and stage of the disease are the principal internal causes that influence the mortality, except the form of the disease which, exclusive of congenital idiocy, may be, perhaps, reduced to an element already discussed—the "stage of the disease." The influence of complications, of sex, and of age, may be assumed to be nearly the same in the licensed houses and Hanwell, as in ordinary asylums—the asylum, for instance, at Gloucester, where the mortality does not exceed 7 per cent. annually. The mortality of 7 per cent. may be fairly ascribed to insanity. The excess above this must be attributed to the diseases generated by the limited space in which the unhappy lunatics are confined—to the collection of large numbers under the same roof—the impurity of the atmosphere—the want of exercise and warmth—the poor unvaried diet—and the deficiency of medical attendance.* But the influence of these agents can only be ascertained by a Parliamentary inquiry; and it will not be denied that the causes should be investigated which raised the mortality of lunatics above the standard—57 per cent. among private patients, 71 per cent. at Hanwell, and 200 per cent. among paupers in the large licensed houses!

The Bethlem Hospital differs essentially from the Hanwell Asylum, as well as from the majority of the licensed houses, in the stricter selection of patients for admission. By the rules the following cases are inadmissible:—lunatics who have been insane for more than twelve months; who have been discharged uncured from other hospitals; in a state of idiotcy; afflicted with palsy, or with epileptic or convulsive fits, and suffering from any dangerous disease. Notwithstanding the instructions in the admission papers, the petitions of 58 out of 311 (19 per cent.), who applied in 1836, were rejected. The patients are not allowed to remain longer than one year. 253 lunatics admitted in 1836 had been insane 83 days, on an average; 117 had been insane less than a month.

It would be exceedingly interesting to determine the mortality of this selected class of lunatics for 12 months. But, if dangerous symptoms come on at Bethlem, the patients are dismissed, when practicable, as *improper objects*. Thus of 3026 discharged in 10 years, 829 were dismissed uncured, 483 as *improper objects*, and 145 dead. A great number of the "improper objects" would die soon after they left Bethlem; and their dangerous state, or supposed incurability, was the alleged cause of their dismissal. Paralysis, however slight, even of a finger, is the forerunner of death in the insane; and of 210 dismissed as improper objects (1831-36), 87 were paralytic, 59 "sick and weak," 24 epileptic, 4 apoplectic, 2 had "fits," and 28 were idiotic.

The lunatics at *Bethlem* are divided into three classes; "curables," "incurables," and "criminals."

Twenty-one of the lunatics on the list of the hospital were constantly out on leave of absence; and, during the thirteen years, 122 individuals were discharged as "out on leave of absence."

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* The diet and the condition of lunatics at Hanwell have been latterly ameliorated very considerably by the visiting Justices, at the suggestion of the present accomplished physician; and the mortality may be expected to be reduced in proportion. It is also right to state that in some licensed houses the mortality of private patients does not exceed 7 per cent.

CURABLE LUNATICS, 1827-39.

	Men.	Women.	Total.
Admitted	1168	1707	2875
Discharged	1145	1654	2799
Discharged as cured	545	961	1506
Improper objects	236	166	402
Dead	75	69	144
At request of friends	19	17	36
Uncured	254	422	676
Leave of absence expired	16	19	35
Out on leave of absence	49	73	122
Years of life	637	1002	1639
„ (exclusive of those out on leave of absence)	..	..	1371

Of 100 "curable" patients discharged, 54.5 were cured, 5.2 died. The mean term of treatment was .586 year = 7 months; or .49 year = 6 months, if the time spent out of the hospital, on leave of absence, be excluded. The lunatics discharged as "improper objects" were 14.5 per cent.; a considerable portion of whom would have been numbered with the dead if they had remained.

The *annual* mortality was 8.8; the recoveries 9.7. per cent.; 24.5 per cent. were discharged as improper objects; 43.4 were discharged uncured; 2.1 were out on leave of absence. 171 were discharged annually out of a constant population of 100.

If the deaths which occur among those out on leave of absence are not recorded, the annual mortality to 100 resident in Bethlem is 10.5.

Incurables.—Seventy-two "*incurables*" were admitted; 72 discharged (33 men, 39 women); and the average number resident for 13 years was 64.2. The years of life were, therefore = $64.2 \times 13 = 834$. Nine incurables were cured, 39 died, and 24 were discharged at the request of their friends.

Of 100 cases, 13 recovered, 33 did not recover, and 54 died. One in $11.6 = 6$ per cent. were discharged annually; the mean term of residence was 11.6 years. 1 in $21 = 4.7$ per cent. died, and 1 per cent. was cured annually.

"Incurables" is an improper term; but it is a recognition of the law that recovery is infrequent in advanced stages of insanity.

Criminals.—In the 13 years, 71 criminal lunatics were admitted at Bethlem (56 men, 15 women); 51 were discharged, namely, 26 died, 2 escaped, and 23 recovered. The average number resident was 57.3, the years of life 745.

Of 100 cases, 45 recovered, 51 died. The annual rate of mortality was 3.5, of recovery 3.1 per cent.; the mean term of treatment deduced from the years of life, and the number discharged, was 14½ years. The numbers admitted and discharged in the 11 years (1827-37) were nearly equal (36 and 39); and the years of life divided by the number discharged = $\frac{407}{39} = 10.7$ years.

It is evident that several of the criminals, such as Oxford, cannot properly be said to labour under insanity—in the sense of a disease. It is, if anything, like idiotey, a congenital misdevelopment of the brain.

The number of recoveries is considerable at Bethlem, but less than at some private asylums, notwithstanding the careful selection of cases. The mortality is reduced by excluding dangerous cases, and by dismissing the patients on the verge of death, as "improper objects." It is difficult, under these circumstances, to account for the death of nine or ten in 100 annually, upon any other supposition than that the mortality is high at the early stage of the disease in Bethlem.

The last committee of the House of Commons on lunatics, stated in their report, "It has been clearly established in evidence, that there is no due precaution *with respect to the certificates of admission, to the consideration of discharge*, or to the application of any curative process, to the mental malady."* Lunatics under confinement, it should be well recollected, are *prisoners;* and every one will admit that the depriving a man of his personal liberty, or turning loose a lunatic on society, are acts involving great responsibility,—a responsibility which, if it exist at all, is very imperfect in the present state of the law. In order to deprive a lunatic of his estates, a formal inquiry is publicly instituted; but a person who has been seven days chargeable to the parish may be committed as a lunatic to the County Asylum by two justices of the peace, on the certificate of *any* physician, surgeon, or apothecary, asserting that the "said person

* Report, 1827, p. 4.

appears to be insane of mind." 2780 pauper lunatics are confined under these certificates in the county asylums.* But there are 1389 lunatics and 7007 idiots "under the care of the parish officers, as in-door or out-door paupers." Many of them are necessarily under restraint, without either warrant or certificate; which is only required when the parishes think it necessary to send them to a public asylum, where their treatment costs two or three times as much as the workhouse fare.

Paupers may be sent to licensed madhouses by a justice, or by the officiating clergyman and overseer, with one medical certificate; and other persons may be sent to a licensed house by any layman, upon the certificates of *any two* medical men.† It appears also that by law, any person whom the governors choose to admit as a lunatic, may be confined at Bethlem, or St. Luke's Hospital, for an unlimited time.

The liberation of persons in confinement as lunatics, takes place under no better regulation. Medical visitors have been appointed, in the words of Lord Lyndhurst, "to see that the Chancery lunatics are well cared for; but, above all, *to watch the least glimmering of returning sanity, and see that the parties are not detained one day longer than necessary.*" The relatives, parish-officers, proprietors, justices in petty sessions, and the metropolitan commissioners, release lunatics from the licensed houses; but the mode in which this is effected is by no means satisfactory. "When once," says Colonel Sykes, "they (pauper lunatics) get shut up in a madhouse, it is indeed difficult for them to regain their liberty."‡ Lunatics are discharged at the discretion of the visiting justices from the county asylums; by the governors from Bethlem, St. Luke's, and other hospitals supported by subscription; and by the parish officers from workhouses.

Many cases of abuse have occurred under the present system, which will be probably thought by the society to require extensive alterations. And although there would be much difference of opinion on many points, all will probably agree that *no person should be placed under restraint as a lunatic in asylums, hospitals, or houses of any kind, who has not been examined by a public officer, practically acquainted with insanity.* I would, therefore, suggest that by some modification of the present system of inspection, the circumstances of every lunatic confined should be investigated personally by a crown officer, and recorded previous to committal, at the expiration of every quarter of a year after admission, and at the time of dismissal. The sex, and age, the stage, form, and complications of insanity should be registered, on entering and leaving the several institutions, by impartial officers. This would be a protection to lunatics and to the public; the deaths and recoveries would be registered on an uniform plan, and an invaluable statistical check on the results of treatment would be obtained.

We may, then, discover the causes of insanity, the laws which regulate its course, the circumstances by which it is influenced, and either avert its visitations, or mitigate their severity; perhaps, in a later age, save mankind from its inflictions, or, if this cannot be, at any rate ensure the sufferers merciful treatment.

* Return to the House of Commons, 5th July, 1836.

† 9 Geo. IV., c. 40; 2 and 3 Will. IV., c. 107; 3 and 4 Will. IV., c. 107.

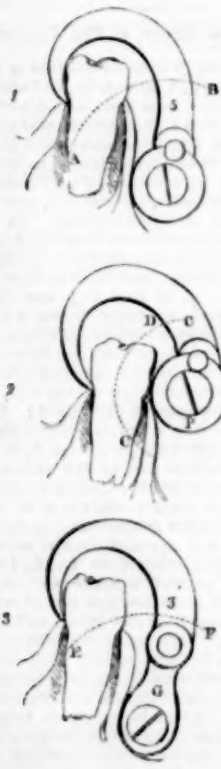
‡ Journal of the Statistical Society, vol. iii., p. 146.

TOOTH INSTRUMENTS.

To the Editor of THE LANCET.

SIR:—Though in some measure a practical man myself, I have been, unfortunately, a great sufferer from bad tooth-drawing. I have never seen a demonstration of the principle of the key-instrument; and since not one man in twenty is naturally possessed of mechanical ingenuity, and as dentists are, for the most part, self-dubbed, how necessary is such a demonstration. By woful experience I know more than one dentist of great popular reputation who is totally ignorant of the real mechanical properties of the key, simple as it may be; but who, no doubt, would willingly thrust my teeth down my throat, were I to tell him so individually. Some have even condescended to tell me, when asked, "the best plan is to bury the fulcrum deeply by the side of the jaw," as represented in fig. 1; but on turning the key when so applied, the resolution of force being in the arc A, B, which is not in the direction of the socket, either the tooth must break, or, what is inevitable, the alveolar plate yields: and to use the key thus, requires greater force, and produces more pain and mischief, than is necessary; but the thing being done quick, by brute force, the patient is quite satisfied; not knowing that he has suffered about three times as much pain and injury as he should have done. Yet it strikes me such ignorance is not bliss by any means. But when the points of the claw are nearly horizontally opposed to the fulcrum and its centre of motion, as shown in fig. 2, on turning the key, the tooth is moved out in the arc C, D, which is in the proper direction of the socket; very little force is necessary, as not only the great lever power of the instru-

ment is at its best advantage, but also, as before said, it is not opposed by the direction of the socket. Fig. 2 represents the best construction and application of the key-instrument; but if the fulcrum revolve, so that it can also remain stationary on the gum when used, so much the better;—that is, if the instrument can be turned without turning the outside of the fulcrum P with it, the gum will not be injured by it, and no protection by lint is necessary. Fig. 3 is a correct representation of an instrument lately purchased from one of the first instrument-makers in London, as the most usual construction in present use; but I have no hesitation in saying it is the worst that can be, both from the length of the fulcrum G (which if here called a lever is at great disadvantage), and from its extensive range for misapplication, as shown in the figure. Indeed, I find in using it, the best application of which it is susceptible draws the tooth too much on one side, and out of the direction of the sockets.



A more scientific demonstration would be less intelligible than this popular one to those who most require it. I remain, Sir, yours most respectfully,

ROBERT STEVENS, M.R.C.S.

Kennington Common, March 7, 1841.

REMARKABLE SLOWNESS OF PULSE.

To the Editor of THE LANCET.

SIR:—The Number of THE LANCET for March 20th, contains the report of a discussion which took place at the Royal Medical and Chirurgical Society upon a case of slow pulse treated by Mr. Holburton, wherein it was considered that the altered state of circulation arose out of an injury of the neck, which the patient had two years previously sustained. The case was extremely interesting, and, as remarked by Mr. Cæsar Hawkins, exhibited an instance of the slowest pulse ever recorded; but he also stated as his opinion, that it was not attributed to the accident that had befallen the patient, Mr. Arnott came to the same conclusion. In reading over the author's account of the case, I could but feel that the objections offered by those gentlemen were not altogether groundless.

In the extract laid before the society, containing an account of the post-mortem examination conducted by Mr. Liston, no allusion whatever was made to the heart; and what appeared to me still more remarkable, during the controversy no inquiry was made as to the state of that organ, or even the heart examined. This is a question which appeared to me to bear materially upon the subject. Various conjectures were offered as to the cause that might have operated in producing the slowness of pulse, such as disturbed or deficient circulation in the brain, affections of the pneumogastric nerves, or a diseased state of the arteries; but no suggestion was made that the slowness of pulse might not have originated in some structural change of the heart. As far as my own experience goes, I am inclined to the opinion, that extreme slowness of pulse is more likely to be connected with this cause, than either of those previously adverted to.

In the course of my practice the following case came under my notice:—A gentleman, between forty and fifty years of age, whose pulse when in health averaged seventy-five strokes in the minute, became afflicted with shortness of breath, oppression about the chest, and great prostration of strength, attended with a pulse not exceeding forty beats in the minute, and sometimes it would sink below that number. The only indication of disease about the heart was a fulness of action; its stroke was synchronous with

the pulse, and devoid of adventitious sounds; the symptoms gradually increased, and continued to do so for the space of two or three years. Stimuli, when administered, were generally followed by an accelerated circulation, and temporary increase of physical power. He at last sank under the influence of an unusually severe attack of dyspnœa. Upon examining the body after death, the heart was found imbedded in fat, its structure generally had become blanched, softened, and the finger could easily be made to penetrate its substance. Neither the semilunar nor mitral valves presented any marks of disease. The superior and inferior cava, together with the right auricle, were distended with a large quantity of dark-coloured blood.

At this time I occasionally visit a patient in his 70th year, whose pulse, which is soft and compressible, does not exceed twenty-six beats in the minute. Three years since he first began to complain of slight dyspnœa, and was suddenly attacked with a fainting fit, which lasted ten minutes. At the end of three months he again experienced a return of fainting. These attacks continued to recur at irregular intervals, the difficulty of breathing increasing. Anterior to these attacks his pulse was about seventy. The heart, when last examined with the stethoscope, showed its action to be extremely feeble; the impulse could scarcely be felt, its sounds also were indistinct, but sufficiently audible to make out the ventricular contraction to be of a tremulous kind, and it did not occupy a longer space of time than the pulse at the wrist, which was simultaneous with it. Now and then the pulse was observed to be followed by a second beat, but, comparatively speaking, of much less force than the one preceding it. The number of respirations was twenty-six in the minute; but if the patient became excited in mind or body, distressing dyspnœa followed. Never having been present during the time of the fainting fits, I am unable to speak with any degree of accuracy as to the state of circulation at those times. A medical gentleman who was present on one of those occasions, informed me the pulse could scarcely be felt, and described the patient as being in a most powerless state, both of mind and body. Warmth applied to the extremities, and mustard poultices over the region of the heart, together with the use of brandy and other stimuli, after a short time, had the effect of gradually restoring him.

In neither of the cases above alluded to, does it appear that any injury of the neck, affection of the brain, or impediment to the transmission of blood through the vertebral arteries, ever existed.

It may be remarked, that extreme slowness of pulse has sometimes been recognised as a constitutional peculiarity, and, like many other idiosyncracies, has been known to pervade several members of the same family. I am, Sir, your obedient servant,

W. C. Worthington, Senior
Surgeon to the Lowestoft Infirmary.

May 1, 1841.

CENSUS OF PRACTITIONERS OF MEDICINE.

To the Editor of The Lancet.

Sir:—As a member of the profession desirous of promoting an efficient medical reform, I shall feel obliged if you will allow me a small space in your useful Periodical.

Your are well aware, sir, that the decennial period for taking the census rapidly approaches, and it is on that account that I now address you, and respectfully suggest that the parties entrusted with that duty shall be required to make a return of the professional men in the United Kingdom, together with their title or titles, and from whence granted. I cannot conceive that there would be any difficulty in effecting this; and it is admitted that there is some difficulty in arriving at a correct knowledge upon the subject.

I should not rest satisfied with ascertaining the number of professional men in practice, but would include those retired, if such could be done; from an inquiry of this nature, the number of irregular as well as regular practitioners might be made apparent. If considered expedient, chemists and druggists could be included, as well as midwives, aurists, oculists, dentists, cuppers, chiropodists, bone-setters, venders of patent medicines and nostrums, &c., so that it would be seen what the numbers of each of those are.

I think that an accurate account of medical practitioners would very materially assist in the framing of a Bill, inasmuch as it would indicate what were the numbers in each division of the United Kingdom for representation, and as a consequence the number of councillors assignable in conformity thereto; at least this method would be coming nearer to the point than that of proceeding on the principle of population. The inquiry need not extend to the small islands belonging to either of the three divisions of the United Kingdom; and medical men every where might be requested, through the medium of the periodical medical press, to afford all the assistance in their power to the parties engaged in taking the census.

An Inquirer.

Liverpool, April 20, 1841.

THE LANCET.

London, Saturday, May 29, 1841.

Few individuals can feel proud of their connexion with the recent proceedings of the College of Physicians; hence we do not accuse a "petitioning licentiate," who has addressed a contemporary on the subject, of any imprudence, in concealing his character under the name of "Philodemus." The name is "a proper name;" and the exquisite irony of the figure, *lucus-a-non-lucendo*, cannot fail to be appreciated wherever the College's love for the people is known. The philodemic licentiate naturally feels irritated at his present position; the "petitioning licentiates" shrink from the revelation of their acts, and can ill brook the scorn of every English physician, who finds them, after all their professions, opposing the liberal propositions of Dr. Watson, Dr. Latham, and other Fellows, not *speciali gratiâ*, but of old standing.

"Philodemus" only denies the accuracy of one of our statements. "The Lancet," he says, "misrepresents the petitioning licen-"tiates, when it avers or implies that they "contended for an absolute equality of pri-"vileges between the orders of Licentiates "and Fellows. * * * They *never prayed* "*that the distinction of Fellows and Licen-*"*tiates should cease*, but that the distinction "as to admission to the Fellowship, founded "on the locality where the diploma had been "received, should thenceforth cease and de-"termine." Pretty nearly the same language was held by Dr. Copland, and other "petitioning licentiates," at the meeting. It happens, however, unluckily for those gentlemen, that the petitions were printed, and still survive in the pages of The Lancet; a perpetual proof of their sad apostacy. In reference to the first petition, Dr. Sims was asked by the Select Committee of the House of Commons, in 1834: "(2345) Do you think "that there is no foundation in the charter "for *the distinction between the Fellows and* "*Licentiates*?—The clause in the *petition* is "this, 'That there exists *no foundation in* "'*the charter, or in the Acts confirming it,* "'*for such distinction of orders, and conse-*"'*quent exclusion from all privileges.*' I "admit the distinction between the *collegium* "and the *homines ejusdem facultatis*; but I "do not admit that there is any authority in "the charter, or in the Act confirming it, for "the distinction which the College of Physi-"cians have established between the Fellows "and the Licentiates."

Dr. Sims was the chairman of the "Committee of Associated Licentiates" who in their last petition, presented by Mr. Warburton, Aug. 17, 1835, refer to the evidence in the following terms:—

"Your petitioners beg leave to state, that they view with surprise and regret this *puny attempt at self-reform*, made by the College of Physicians,—in the face of the great mass of *evidence* produced before the Committee of your honourable House, which *so completely demonstrates all the grievances complained of, and substantiates every allegation contained in the petitions* presented to both Houses of Parliament in the two last sessions, by your petitioners and others."

The petition was signed only by the Committee of Licentiates; among whom, however, the name of James Copland stands conspicuously. Two highly-respectable Fellows proposed at the meeting to concede the prayer of the "petitioning licentiates," to do away the "distinction of orders" which has no foundation in the charter, to make the Licentiates Fellows; and this proposal was negatived by the identical Fellows who contended for it when they were Licentiates, on the ground that the distinction was illegal. Do the annals of apostacy present a more flagrant piece of tergiversation?

The proceedings of the College grow every day more ludicrous. "Philodemus" says it has been agreed, "on all hands," that the *term* "licentiate" shall be *abolished*, and "member" substituted in its place. He is evidently an amusing fellow, without being aware of it, and waggishly adds: "To "*prove* that this change was not in name only, "it was further agreed that the members or

"licentiates should have *access to the library "and museum of the College!*" The Fellows are to be augmented one-fourth, and to be elected conjointly by the Licentiates and the Fellows: all physicians now practising throughout England and Wales with a diploma of M.D, obtained, after examination, from any British university, are to be entitled to admission as members (licentiates) of the College, *without examination*, provided application be made within twelve months from the passing of any new ordinance for the regulation of the College. The quaint "PHILODEMUS," moreover, observes—"It was "felt that a bond of union between the Fellows "and Members was still wanting. To supply "this *deficiency* it was proposed, and agreed "to, that *once* in every year the Fellows and "Licentiates should meet together at a general "conference, or *concio*, when Fellows should be "elected by ballot, and such other business "transacted as might hereafter be agreed "upon."

The College have completed their "dirty work," in the descriptive language of Dr. CHAMBERS. The Licentiates are to have access to the library and museum of the College; they are to be debarred no longer from those accumulating stores of science; and the invidious task of nominating a fraction of their number to the Fellowship is to devolve upon their shoulders. By this arrangement all the existing Fellows will be confirmed in the possession of their exclusive privileges; while the Licentiates—the majority of the College—will still remain without the gates, will have no voice in the election of the executive council, and be officially received only once a-year by the Fellows.

What does the College expect to gain by these concessions? "PHILODEMUS" is silent; but a "*Provincial Hospital Physician*" has answered the question in THE LANCET of May 15th:—"Then the College," says this acute writer, "after all, is only going *to speculate on the pockets of those independent of their body. They offer no real advantage in return*; they can neither give us reputation "nor take it from us. They offer only a "licence; but without that we have obtained "honour and fortune. * * * The provincial practitioners should deliberate on "this matter; if they yield to the present "scheme of licentiateship, *they* will confer "the favour; the College will receive it. "*The sum which the non-College physicians "would subscribe, would raise them a* COLLEGE "OF THEIR OWN; and their Fellows would "not boast inferior names to the list of the "London College."

It must never be forgotten, in these discussions, that the College of Physicians is "poor even to bankruptcy;" is without power, and neither enjoys nor confers respect; while as the fees amount to 56*l.* 17*s.* each, if 1000 physicians took out the licence, they would contribute to its exhausted treasury 56,850*l.* sterling. Before placing any such sum at the disposal of the College, British physicians will do well to deliberate long and deeply.

In all the projected reforms of the Philodemic College, we see no symptoms of regard for the general practitioners of the country. The Fellows have no sympathy with the great mass of their brethren; they say not a syllable of their grievances; they propose nothing for the general improvement of physic in the empire; and would do nothing for the great bulk of the people. This may be a proof of affection, for all we know: but the Fellows of this contemptible College are egregiously mistaken if they conceive that seventeen or eighteen thousand medical men, in every respect their equals, and in experience often their superiors, are to be thus coolly set aside.

It is a pretty notorious fact, that the medical education of the students of the private schools, and the examinations which they have undergone in this country, are equal in every respect to the education and examinations of the schools called Universities: the only difference is in the title. That difference may be removed at once, as the following recent advertisement evinces:—

"DIPLOMA IN MEDICINE.—Any properly-qualified practitioner, desirous of obtaining

the degree of M.D., may, through the influence of the advertiser, receive the same from one of the *oldest continental universities*, without absence from home.

"Address, with full name and *nature of qualification*, to ——."

Many of the present Doctors in Medicine, whom we could name, obtained their diplomas in this way, from the Scotch and continental universities. Under the present system the practice may be, to a certain extent, excused; but it is illicit, and must tend to depreciate the value of the title, if the title have any value. The illicit trade should not be encouraged. But if the Colleges should raise any difficulties to the title, here is an obvious way of procuring it, without any further examination, to which established practitioners, of course, entertain objections. We recommend the general practitioners of the country not to waste money on this smuggling trade, or on the agents of the "oldest continental universities," whose terms are, no doubt, comparatively exorbitant (10*l.* perhaps), but to seek justice from the institutions and Legislature of their own country. If their rights be denied—and they desire the title of Doctor—a public arrangement may, no doubt, be made with "one of the oldest universities of the continent," by which all who have undergone examinations in England may, in a body, be supplied at 1*l.* each, with *seventeen or eighteen thousand* diplomas.

The College of Physicians will do well to ponder this fact,—that every surgeon and apothecary in the United Kingdom can, for a few pounds, procure from an old university a diploma of Doctor in Medicine, which confers as much intrinsic honour, and the same privileges, as the licence of the London College.

Our readers will rejoice to learn, that the Bill which was to perpetuate the worst features of the new Poor-law, has been withdrawn, and will not pass in the present Parliament. It is for the electors to decide whether the workhouse-test, and the system of medical relief, which have been fatal to so many thousands of their fellow-creatures, shall be sanctioned by the next House of Commons.

THE CENSUS.

The Census of the Population of the Kingdom is to be taken on Monday week, June 7; and the importance of this national undertaking will, we have no doubt, induce the members of the Medical Profession to use all their efforts to promote its success. The Census has already been taken at four decennial intervals,—in 1801, 1811, 1821, 1831. The ages of a part of the population were enumerated in 1821, and are to be stated under the present Act. The enumeration of 1831 was deprived of much of its value by the omission of the ages, the knowledge of which, as our readers are aware, is indispensable for the formation of national tables of mortality; and for all the calculations framed to exhibit the sickness of the general population. The prevalence of diseases in a district can be determined accurately, by a comparison of the numbers living at every age with the numbers attacked or dying. The inquiry contains another particular, intended to show the extent of emigration; namely, whether each individual was born in the county in which he may be located at the time of the Census,—in Scotland, Ireland, or foreign parts.

The Census was taken four times under the direction of Mr. Rickman. The present account of the population is to be taken under the superintendence of a commission, comprising the Registrar-General of Births, Deaths, and Marriages, with whom are associated for the purpose the Hon. E. Phipps, and Mr. T. Vardon. Mr. T. Mann is the secretary. The Census is to be effected by enumerators, acting in England under the supervision of the registrars and superintendent-registrars.

The country has been divided into enumeration districts, varying in size according to the density of the population, and containing from 25 to 200 houses. The registrars are directed to distribute *householders' schedules* at every house, in the week ending Saturday, June 5, to be filled up by the householder or occupier. Where this is not done, the enumerator will perform the task himself o

Monday, if practicable. The schedule is subjoined, with the directions for filling it up —to give a general idea of the operation. A special schedule has been prepared for hospitals, and other public and charitable institutions.

CENSUS OF THE POPULATION IN ENGLAND AND WALES.
1841.

HOUSEHOLDERS' SCHEDULE.

THE Commissioners appointed under the Act of the 3rd and 4th of her present Majesty, chapter 99, hereby give notice, That on *Monday, the seventh day of June*, the enumerator of each district will proceed to visit every house in his district, and will call for this paper, which the inhabitant householder or any occupier to whom a whole story or apartment of the house is let, and for whom a paper is left, is hereby required to fill up correctly and sign. Inconvenience will be spared to the householder or occupier if this be done before the enumerator calls at the house. It may be done before Monday, June 7th, but in that case care must be taken afterwards to strike out the names of all persons who were absent on the night of June 6th, or to insert any who abode in the house on that night, but whose names had been previously omitted. The only object for which this information is sought being to obtain an exact account of the population of the kingdom, as in the years 1801, 1811, 1821, and 1831, the Commissioners earnestly hope that every householder, occupier, and head of a family, will willingly assist in this great national work by giving correct returns. If the owner of the house is absent the person in whose charge it is left will be considered the occupier, and be required to fill up and sign this paper.

Name (if any) of the house, or of the village or hamlet in which it stands..... _____

Name of the street or other part of the town (if in a town), and No. of the house .... _____

Name and Surname of each Person who abode or slept in this House on the Night of June 6.	Age of Males.	Age of Females.	Of what Profession, Trade, or Employment, or if of Independent Means.	Whether Born in the County.	Whether Born in Scotland, Ireland, or Foreign Parts.

The foregoing is a true return for this house, *or* for such part of this house as is occupied _____

N. B.—If the return is for the whole house draw a line through the word "or" and the words following—if for part of the house, draw a line through the words "for this house *or*" and state after "by," the name of the occupier—then sign your name after the words "Witness my hand."

Witness my hand _____

DIRECTIONS FOR FILLING UP THE SCHEDULE.

NAME OF EACH PERSON, &c.—Insert the name and surname of *every* person who has slept or abode in the house on the night of *Sunday, June 6th*. Set down, one after the other, those who have the same surname, beginning with the head of the family. Under the beginning of the last name in the family draw a line thus /, and then add the other names. Persons sleeping in a separate building (as over a stable or outhouse), although belonging to the house, must not be inserted as inmates of the house, but be inserted in the paper which is left at or for such separate building.

AGE.—Write in figures the age of every person opposite to their names, in one of the columns headed "*Age of male*," or "*Age of female*," according to their sex. For persons aged 15 years and upwards it is sufficient to state within what period of five years their age is, writing down the *lowest* number of that period: thus, for persons aged 15 and under 20, write 15—for 20 and under 25, write 20—for 25 and under 30, write 25—for 30 and under 35, write 30, and so on, up to the greatest ages; but the *exact age* may be stated if the person prefers it. For persons under 15, write the number of years; for infants under one year, the number of months.

OF WHAT PROFESSION, TRADE, EMPLOYMENT, OR IF OF INDEPENDENT MEANS.—The profession, &c. of wives, or of sons or daughters living with and assisting their parents, but not apprenticed or receiving wages, need not be inserted. Domestic servants may be inserted as *male servant* or *female servant*, without further statement of their duties. Those who are *journeymen* or *apprentices* in any trade must be inserted as such, with the name of the trade. In cases of factory or manufacturing employment, state the staple on which employed, as silk, cotton, woollen, linen, &c., with the description of work, as *silk-throwster, wool-carder, &c. &c.* In cases of employment in mines, state of what kind, as whether of coal, iron, copper, &c. &c. Men, or widows, or single women, having no profession or calling, but living on their means, may be inserted as "independent."

WHETHER BORN IN THE SAME COUNTY.—Write *Yes* or *No*, as the case may be.

WHETHER BORN IN SCOTLAND, IRELAND, OR FOREIGN PARTS.—Opposite the names of those born in Scotland, write "*Scotland*"—in Ireland, write "*Ireland*"—in foreign parts, if the person is not a British subject, write "*foreigner*;" but *British subjects* born in foreign parts, or in the colonies, must be entered in the preceding column with the word *No*.

PENALTIES.

By an Act passed in the present session, persons making false returns in this schedule, or refusing to make any returns, "*shall forfeit a sum not more than five pounds, nor less than forty shillings*, at the discretion of any justice of the peace, or magistrate, before whom complaint thereof shall be made."

The Act of 3 and 4 Victoria, cap. 99, imposes the same penalty for refusing to answer, or giving false answers to the questions of the enumerator.

The present plan, suggested, we believe, by the Registrar-General, is an immense improvement on the preceding ones (and particularly on the last proposed) by Mr. RICKMAN, which we had formerly occasion to condemn, and the satisfaction to see set aside. The name, age, sex, occupation, &c. of each person will be recorded separately, and the abstracts will be subsequently drawn up on some comprehensive scheme. In the previous Censuses the household abstracts were made by the overseers, and could be neither checked nor combined in any but the original forms; which, as is well known, were very far from being the best that could have been devised, even in that early period of statistical investigation.

Our medical readers who come in contact with all classes, and have a very considerable influence on public opinion, will render essential service by explaining to the people the nature of this statistical operation, and its utility in connection with the public health, life-assurance, and friendly societies.

The History of the Present State of the Venereal Disease Examined, wherein is shown that Mercury never was necessary for its Cure, &c. By G. HUME WEATHERHEAD, M.D.

A Practical Treatise on the Venereal Disease, founded on Six Lectures on that subject, &c. With Plates. By F. C. SKEY, F.R.S.

A Complete Practical Treatise on Venereal Diseases, and their immediate and remote Consequences; including Observations on certain Affections of the Uterus attended with Discharges. With an Atlas of Plates. By WILLIAM ACTON, Surgeon.

THERE are few points of surgical practice that have undergone a more complete revolution within the last few years than has the method of treatment of the venereal disease. It has been jocosely said, by some of the voters for things as they be, by opponents of medical *reform*, and by tramplers upon the solid bulwark of our profession—the general practitioners, that the division of surgeon and physician were created by the public, and must, therefore, continue, whatever change for the better may ensue in medical legislation. By such philosophers, it will be, moreover, contended, that diseases are of two kinds, surgical and medical; that first among the former is syphilis, which, consequently, can be treated only by the surgeon; but the works before us present at once a practical denial to such antediluvian doctrines. Arrayed in the field of surgery, and professing to indicate the only proper treatment of syphilis, is a physician, poaching at once on surgical territory; while we have now in our remembrance a little patient prescribed for by Sir Astley Cooper for intestinal irritation; and another patient labouring under an hysterical affection, treated by Sir Benjamin Brodie. We cannot but congratulate the public upon the universal accession of phy-

sicians and surgeons of the present day to the ranks of the general practitioners; while we hold this as an equally good reason why the latter should be admitted without question to all the advantages and immunities, if such exist, of the former.

Dr. Weatherhead's volume furnishes us with a brief, though interesting, and good account of the history of the venereal disease from its earliest appearance; discussing, in its first pages, the question whether "Job's afflictions" proceeded from this cause, and then proceeding to the maladies of Apion and King Herod, and of buboes amongst the Jews. With regard to the origin of the treatment of syphilis by mercury, the author observes:—

"We learn from Benedictus, that in 1495, that is to say, one year after the first recorded outbreak of the venereal in Italy, he had used mercury for its cure even to the exciting of salivation. Certain of the pernicious effects of this medicine were well known to him, for he speaks of its loosening the teeth, and of some becoming tremulous and paralytic in consequence of its use."

Sydenham was an active supporter of the mercurial treatment of this disease, for he "did not consider that salivation had come to a due height unless two quarts were spit in the twenty-four hours; adding, that 'if the salivation abate before the symptoms disappear, it must be heightened by giving now and then twenty grains of calomel for a dose.'"

"The frightful effects of such treatment are apparent from Sydenham's own words; for he speaks of 'ulcers of the mouth,' of 'the pain therefrom being so violent that the sick could not bear it,' and of the mouth being so excoriated that the blood flowed night and day.' 'Many have been miserably destroyed, nature sinking under the burden occasioned by the quicksilver; or if they chance to escape, it is accompanied with so many torments that it were better to die!'"

Boerhaave remarks upon the use of mercury, "If three or four pounds of saliva are spit every twenty-four hours, it is sufficient; if the patient spit less, the salivation is to be increased."

With respect to his own plan of treatment, Dr. Weatherhead observes, that two objects are kept in view: "The first is to heal primary sores as speedily as possible; the second, to assist nature in eliminating the virus from the system." This, he conceives, will be best effected by keeping "all the principal emunctories of the system in activity, so as to purge the blood of the venereal virus; at the same time a generous diet is prescribed, and the general health improved in every possible way, so as to resupply material for perfectly pure blood."

"In order to attain the primary object," he continues, "the remedy employed consists of the oxysulphuret of antimony, nitrate of potass, and sublimed sulphur. The *modus operandi* may be thus briefly explained: the antimony not only acts in conjunction with the sulphur on the digestive system of organs, but entering intimately into the circulation, produces a determination to the skin. The whole pathology of the secondary symptoms points out how essential it is to excite an increased action of this important emunctory, and thus to counteract the tendency of the disease to debilitate the capillary vessels. Hence, perhaps, the principal efficacy of the decoctions of guiac, sassafras, sarsaparilla, and the like. Hence, also, the superior benefit accruing from every remedy when administered during the genial warmth of summer, and in a pure air, to what is observed to take place during the chilling damps of winter, when the capillaries of the skin are constricted. The sulphur co-operating with the antimony, acts in the same beneficial way, and may be regarded as its vehicle, minutely dividing and distributing its particles into every tissue in the system; whilst the nitrate of potass not only promotes the secretion of mucus and other intestinal juices throughout the alimentary canal, but it possesses powerful antiseptic properties, and exerts a direct action on the kidneys. Thus, to carry off the morbid virus and purify the humours, those three great emunctories—the skin, the kidneys, and the bowels—are called into action; and thus are the indications of Nature herself observed when she spontaneously performs the cure. What may be the precise action of the antimony, nitre, and sulphurous acid into which sulphur is converted by the chemico-vital action of the system in the cure of the disease—whether it combines with, neutralises, and thus destroys the syphilitic virus, as by many is supposed to be the action of mercury; or whether by stimulating the great emunctories of the body, and being itself determined to those excreting organs, it simply conducts and expels the virus from the system, is of minor importance, so long as the object is accomplished. Speculative opinions of this kind have no practical result. However, if the author may venture his own, it is in favour of the latter, in accordance with the old, and, perhaps, too-much neglected doctrine of the humoral pathology."

Mr. Skey also advocates the treatment of syphilis without mercury; his work is cleverly written, and contains a store of useful information upon the subject. With regard to the method of treatment which he adopts, the author observes:—

"In this age of experiment, one fact is worth a hundred arguments, and it is by this kind of evidence that I seek to be examined. If I have cured, without recourse to mercury, many hundreds of cases of venereal disease in the medium period allotted for the purpose, there is surely no occasion to go beneath the surface in order to prove that the same course may be pursued on all hands with the same result; admitting these practical alterations to constitute an argument that the plan is good to be acted upon, it follows that it is equally good for one practitioner as another."

The author arranges venereal sores under three heads: 1. "The common sore, or venerola vulgaris, of Mr. Evans; 2. The phagedænic sore; and 3. The indurated sore of Mr. Hunter. These and their modifications include all forms of venereal sores." The common venereal sore "is purely and entirely a local sore, pursuing its career, when unmolested, till it accomplishes its own crisis, producing no secondary eruptive affection whatever." The treatment of this sore may be summed in a few words; "it requires watching, more especially in some depraved states of health; but you must be content to be a quiet, inofficious looker-on—probably for weeks. You cannot arrest the ulcerative action by stimulants; nor can this object be effected by the agency of mercury."

Of the treatment of the phagedænic sore, Mr. Skey observes, "Neither the phagedænic action nor the disposition appear to extend far beyond the ulcer in its early stages; and both may be occasionally destroyed by escharotics carefully applied to the whole surface. But this treatment is applicable to the first stage only—its beneficial influence is most manifest in the severer form of the disease in which the action approaches to sloughing." "Mercury in any form or quantity, except in minute tonic doses, is, for the most part, highly objectionable."

The true syphilitic sore, says Mr. Skey, is characterised by "deposition, while the character of the phagedænic variety is ulceration. True syphilis is chronic in form,—seldom appearing within a week, averaging about ten or twelve days, and being occasionally detected at the remote interval of four or five weeks." "Its presence is first observed in the form not of a sore, but of a circumscribed thickening." "The treatment is essentially mercurial, although the possibility of subduing its influence by other means has been thoroughly established by the army surgeons."

The subsequent chapters of Mr. Skey's work relate to non-venereal sores and gonorrhœa, and are well deserving the attentive perusal of our readers.

The materials of Mr. Acton's work are derived from the practice of Ricord, of whose opinions and modes of treatment this volume may be regarded as a faithful outline. It is illustrated with some beautiful wood engravings by Bagg, and accompanied by an atlas exhibiting some of the diseases of the os uteri, diseases of the glans penis and syphilis, particularly the appearances produced by inoculation with the matter of chancre in the skin of sound parts. The plates are well executed, and are printed in colours by Hullmandel.

The author treats, in the first instance, of the history of venereal disease, and divides his subject into two parts, *syphiloid* diseases and *syphilis*. Under the former head he considers blennorrhagia, gonorrhœa, gleet, epididymitis, strictures, affections of the prostate gland, false passages, disease of Cowper's glands, infiltration of urine, fistulous openings, blennorrhagic ophthalmia, blennorrhagia of other parts of the body, as of the anus, groin, &c.; vegetations; herpes præputialis; eczema; and excoriations. Under the title of syphilis he discusses the nature and treatment of chancre; bubo; secondary symptoms; secondary affections of the skin; syphilitic affections of the mucous membranes; syphilitic affections of the eye and testicle; tertiary symptoms; and syphilis in children.

Mr. Acton considers the varieties of chancre under five heads; viz.:—1. Phagedænic chancre; 2. Diptheritic phagedænic chancre; 3. Indurated chancre; 4. Indurated phagedænic chancre; and, 5. Gangrenous chancre. After discussing the treatment of the three first varieties by local and general means, unassisted by mercury, the author observes:—

"Indurated chancre will heal without any general treatment. The employment of mercury is not absolutely necessary; but if not had recourse to, we run the risk of a simple indurated chancre assuming a phagedænic appearance. M. Ricord states, that 'if, like the physiological school, we date the cure of a chancre from the period at which the ulcer is cicatrised, without regarding the consequences, the cure will apparently be more rapid under simple treatment; and in hospitals the patients are a less time under treatment. But if, in order to call a patient cured, we wait until all hardness has disappeared, we shall find an enormous differ-

ence in favour of a mercurial treatment."

Our space will not permit us to give further extracts from these volumes; but we recommend them to the attention of our readers as deserving of perusal. It would be invidious to select one as developing the subject upon which it treats with more judgment than the others, where the path assumed by each author is so totally different from that which the others pursue. They each concur in the absence of any necessity for the employment of mercury in the cure of venereal disease, but advance reasons in support of its utility as an adjuvant under certain circumstances.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, May 11, 1841.

Dr. WILLIAMS, President.

Colica Pictonum treated with Warm Water. By JOHN WILSON, *Physician to the Middlesex Hospital.*

In this paper the author, after referring to the complicated treatment of the disease pursued at the Hospital of La Charité, proposes to illustrate two of the remedies there in combination, namely, enemas and hot baths. In six cases of colica pictonum, some of them of much severity, and complicated with paralysis, Dr. Wilson has employed enemata, administered in the hot bath, in one case by the patient himself, and consisting of the water of the bath.

The effect of this combination has been very successful, both in regard to the symptoms of pain and constipation, and to the paralysis, where that existed. In the course of his statement, the author notices the presence of looseness of the gums, blueness at their edges, and a fœtor like that of mercury, when none had been taken; and informs us, that he has noticed this latter circumstance in other cases of colica pictonum.

He next details a case of constipation, not attributable to lead, in which the above remedies had proved equally successful.

In some of the above cases the treatment is used alone, in others it is followed up by doses of the soap and opium pill; of castor-oil with tincture of opium; or with a solution of sulphate of magnesia and carbonate of magnesia in mint-water.

Results of Amputations at University College Hospital. By JOHN P. POTTER, Esq. Communicated by Mr. LISTON.

Feeling that the only chance of arriving at any safe and satisfactory conclusions in medical statistics depends on the number and accuracy of reports and cases from which such conclusions are to be drawn, the author has examined the report-books of University College Hospital, and collected all the cases in which amputation has been performed since the opening of the institution, on the shoulder, arm, forearm, wrist, thigh, and leg. These he has arranged in the form of tables, and has subjoined a few remarks on the mode of amputation which has been adopted, and the method of dressing which has been observed.

The number of such cases, from the last day of June, 1835, to the termination of the year 1840, has been 66, and of these 56 proved successful; whilst ten have been attended with fatal results, at a variable period of time, after the performance of the operation.

Of the sixty-six cases, eleven were subjected to amputation, on account of severe compound fractures, and other injuries, within twenty-four hours after the occurrence of the accidents. Of these, three terminated fatally in seven, eleven, and forty-eight days respectively. In the first of the three both legs were amputated. The remaining seven cases recovered in periods varying from twenty-three to one hundred and forty-six days.

In the remaining fifty-six cases amputation was performed on account of long-standing disease, or for injuries in which an attempt had been made to save the limbs. Of this number only seven died. The statistical part of the paper is followed by observations at some length on the mode of amputation, and the system of dressing stumps pursued at the hospital.

Mr. PERRY inquired whether, in Mr. Liston's mode of performing the flap operation, by making the flaps in a direction transverse to the limb, the division of the arteries in an oblique direction was avoided? In many cases which he had seen, in which the vessels had been divided in an oblique direction, much difficulty had been experienced in taking them up, but he had never seen flaps made so directly across the limb, as was the case in the instances recorded in the paper.

Mr. LISTON remarked, that his chief reason for forming the flaps in the manner mentioned in the paper, was the production of a good stump. He had never seen the femoral artery cut very obliquely, and had never found any difficulty in securing it. When cut at all in an oblique direction, it was always sufficiently easy to dissect the vessel a little back, towards its origin, before the ligature was placed around it. He thought, however, that the disadvantages said to result from cutting the arteries in an oblique direction, were more imaginary than real.

Mr. Rutherford Alcock would not enter very fully into the subject under discussion, as his views in reference to it were already before the profession. He should, therefore, confine his observations to a few points, having reference to the different modes of amputating, and their influences upon the case; these were best considered under certain heads: such, for instance, as the comparative mortality; tendency to exfoliation; the convexity of stumps; tendency to phlebitis; and the risk of secondary hæmorrhage incurred in the two kinds of operation, the flap and the circular. With regard to the oblique division of the larger vessels, he thought that this was a matter of little moment, as they were easily discovered and secured; he had a strong impression, however, that the oblique division of the smaller arteries had a tendency to produce secondary hæmorrhage, as they became only temporarily or partially retracted, and were overlooked at the time, instead of being secured. A large number of cases were required to determine any particular fact, in respect to the influence of the different kinds of operation, our own experience being frequently liable to mislead us. Thus, from what occurred once under his own observation, he had been inclined to the opinion that secondary hæmorrhage followed the flap operation more frequently than it did the circular. Two men were under his care with gangrene of the feet; both legs of each of them were amputated below the knee; one leg of each was removed by the circular, the other by the flap operation. Secondary hæmorrhage occurred in each of the limbs upon which the flap operation had been performed; and no bleeding occurred in those which had been operated upon by the circular method. After this, on referring to notes of several series of cases treated under his eye, including ninety in which the circular operation was performed, and twenty-five in which the flap operation was resorted to, he found that there had been a much less comparative frequency of secondary hæmorrhage following the latter than the former mode. This result, at first, took him by surprise, but he now believed it to be correct, although he still thought that, under unfavourable circumstances, the flap operation performed on the upper extremity was more frequently followed by secondary hæmorrhage than was the circular mode of proceeding. With respect to the comparative frequency of cases of exfoliation of bone in the two plans under consideration, he thought the mode of operating had little to do with the result. In the flap, however, the proportion was somewhat less. Conical stumps were very rare when the operation had been properly performed. In a series of one hundred and fifteen cases, only two cases of conical stump had occurred, and these were, of course, insufficient to ground any conclusion upon. With respect to the mortality consequent upon the different kinds of operating, it appeared to be greater from the flap than from the circular method. All surgeons were aware that a rapid mode of operating had a great influence on the result of the case; as pain itself might destroy the patient almost immediately, or bring on irritative fever, which, though not so rapid in its progress, was not less certain in its results. He could not think that the time consumed in the operation itself had anything to do with the mortality in question; for, under ordinary circumstances, and in equally competent hands, if the flap operation was performed in forty or fifty, the circular would not occupy more than eighty or ninety seconds. It was a question of seconds, therefore, not minutes, and the difference was not sufficient to affect the results. More secondary abscesses and cases of phlebitis he had found to follow the flap operation in the series alluded to; and this was most important, and might account for the greater mortality already mentioned. As compared with the circular, he would offer a few words with regard to the after-treatment. He could not help thinking that English surgeons had attached too much importance to the influence of union by the first intention, and that the frequency of its occurrence, its value, and its safety, had been much exaggerated. He believed that it very rarely occurred, either in civil or military practice; it was another question, however, how far the *attempt* to procure this union was advisable. In a series of cases published by Mr. Benjamin Phillips, which although, perhaps, not so complete, or free from sources of fallacy as could be wished, yet gave one result which, as it ran through all the series, he was inclined to admit as correct; viz., that the mortality following attempts at immediate union was one in four of the patients, while those cases in which the union was consecutive the mortality was only one in five. There were several considerations which led him (Mr. Alcock) to the conclusion, that union by the first intention was not in all cases desirable, or free from peril.

Firstly. If the natural course of a case of amputation, where there had been no previous disease or injury to interfere with its influence, as in cases of congenitally contracted limbs, loss by gangrene of the feet at remote periods, &c. were watched, it would be found that invariably some constitutional disturbance, and more or less of febrile action in the system, followed with local inflammation. As early as suppuration became established, the fever disappeared; the healthy and tranquil action of the system, therefore, was coeval with the establishment of suppuration.

Secondly. The immediate union of the

stump did not prevent death, from the development of febrile and other actions in the system. He had seen patients die; their stumps either partially or entirely healed by rapid union.

Thirdly. When a stump, by the bringing together of the edges, had very rapidly healed, nothing was more common than for the febrile action to run high, and, after a few days, for the stump to open out again, suppurate, and relieve the patient; Nature thus undoing all the surgeon had toiled, in a contrary sense, to effect: or a depôt of matter would form either at one angle of the stump, or higher up in the limb, as had occurred in a young officer, whose thigh he had amputated. In another instance (a case occurring the same day), a plentiful and healthy suppuration came on; the first reaction and fever had subsided; the patient was doing well, when the suppuration gradually diminished, and fever, in the same proportion, was developed, destroying the patient; no trace of organic disease to account for the death could be discovered. The tendency of all these facts led him to doubt both the value and the safety of immediate union, and to believe that in justly reprobating the practice of irritating the stump, as formerly was the custom on the continent, by stuffing it with charpie, English surgeons had fallen into error of an opposite kind, by shutting their eyes to every fact, and they were many and evident, that pointed out evils attending the enforcement of their favourite theory of "immediate union." He could only say, that his experience led him rather to rejoice than to regret when he saw a moderate suppurative action established before the healing of a stump. Mr. Alcock concluded by pointing out the inconvenience of a plan proposed by Mr. Phillips, of establishing an issue near to the stump, to create a factitious suppuration, as it were. A skein of silk allowed to lie in the lower portion of the stump, one end being brought out, he thought a simpler and more efficient mode; thus allowing the greater part of the surface of the stump to unite, if disposed, and yet securing a moderate suppuration in the lower portion of the stump itself. He had adopted this mode with good results. If the amputation were secondary, performed in diseased parts, and union took place, it was only in the skin, and prejudicial. He always laid a pledget of dressing upon the surface of the stump, gently approximating the surfaces and edges. This tended infinitely more to promote a healthy, suppurative, and granulating action, than pressing one diseased surface upon the other, and producing a temporary union of skin, with putrid matter confined beneath; and he was led to believe that, in reference to the principles of surgery, it was a more scientific mode of treatment.

Mr. B. Phillips remarked, that he had some years since been convinced that many incorrect opinions obtained among surgeons regarding the results of amputation. Six years ago he had collected as many facts as he possibly could, with a view of arriving at more accurate knowledge on the subject. These facts he laid before the society some sessions ago, and it was then generally supposed that the information he had collected was incorrect, and that the rate of mortality which those investigations indicated was too high, and that, consequently, it would not be safe to make them public. He was happy, however, to say, that subsequent inquirers had confirmed the accuracy of the results to which he had arrived. When he commenced his inquiries there was no hospital in London, except that of University College, at which any information regarding the general results of amputation could be obtained. No registers were kept at St. Bartholomew's, at Guy's, or at St. George's; but Mr. Cæsar Hawkins had given him the result of his own experience at the latter institution. At University College Hospital a complete table existed; and the results of the operations up to that time were so different from those which were now presented to the society, that he was surprised. Thus, at the time to which he referred, Mr. Liston had performed twenty-three amputations, twenty-two of which were successful; the mortality, as shown in Mr. Potter's paper, was much greater, giving a fresh illustration of the danger of trusting to small numbers in statistics. The facts which he had collected embraced six hundred and forty cases; one hundred and fifty of which, or twenty-three per cent., were unfavourable. Now, succeeding inquirers had raised this number, by the addition of five hundred and ninety-three cases, to eleven hundred and thirty-three altogether; and the mortality had been proved to be twenty-seven per cent. From these facts he concluded that the results he had at first arrived at were correct, and that the numbers he had taken were sufficient to determine the real mortality with accuracy. The great difficulty in arriving at correct data, from small numbers of facts, in statistics, was remarkably illustrated by the paper before the society. Thus, as he had said, Mr. Liston had only one fatal case out of twenty-three, while the paper made the mortality as ten in sixty-six; if the numbers had been double sixty-six, he thought the mortality would have been proportionally greater. This uncertainty was also shown in the statistical report of the Pennsylvania Hospital. Thus, in the two years of 30 and 31, there were eleven amputations and one death; in 32-33, there were fourteen amputations and seven deaths; 34-35, fifteen amputations and eight deaths; 36-37, fifteen amputations and five deaths; 38-39, twenty-four ampu-

tations and one death. Now, in these cases the patients were in the same hospital, and placed nearly under the same circumstances. Now, in the above report he had ascertained that the number of operations upon the thigh had not been sufficiently numerous to influence in any way the amount or mortality. He thought we were much in want of a better tabular series of cases, indicating more accurately than had yet been done the nature of the injury, or disease, for which amputation had been performed, and the particular limb which had been removed. The kind of disease which required the use of the knife had, doubtless, great effect upon the amount of mortality: thus at St. George's Hospital, where joint cases were numerous, the rate of mortality in amputation of the thigh, for joint disease, as performed by Mr. Hawkins, had been forty per cent. So, if great efforts had been made to save the limb, as was the case in these instances, the patient's health would be under unfavourable circumstances for the operation. With regard to the relative mortality from the flap and circular operations, he thought this mainly depended upon the manner in which the operation was performed, and not on the kind of operation itself. He knew that there was a general opinion gaining ground, that the flap operation was the best, but he did not believe that this was correct. If he wanted evidence to support his opinion, he had only to refer to the tables of Dr. Laurie. In the first thirty cases the circular operation was performed, and twenty-nine recovered; the next thirty were all single or double flap operations, and only twenty-two were cured. These facts showed how little dependence was to be placed on the evidence furnished by small numbers in statistical inquiries. He thought that statistical records of the results of operations were likely to be of service, by showing the surgeon the chances with which he would have to contend; but he did not expect so much advantage from them as did many persons, for he could not think that they would have any effect in determining the result of any particular case.*

* With reference to secondary hæmorrhage, and the influence which the oblique division of the smaller vessels, in the flap operation, has on its occurrence, we may remark, that any mischance of this kind is sufficiently provided against by the mode of putting up the stump followed by Mr. Liston. By allowing, as he does, the parts to become glazed before they are dressed, the occurrence of secondary hæmorrhage from the smaller vessels is instantly detected, and the vessels easily found and secured. Not only is the patient's safety but his comfort provided for by this mode of dressing; for should secondary hæmorrhage occur, there is no necessity for the removal of bandages, strapping, or rollers, as is the case when the limb is dressed in the usual manner.—*Rep.* LANCET.

A Case of Malposition of the Kidneys and Absence of the Vagina, Uterus, and Fallopian Tubes. By R. BOYD, M.D., Resident Physician to the St. Marylebone Infirmary, and Lecturer on Medicine. Communicated by Mr. PERRY.

The patient was seventy-two years of age, and died lately in the workhouse of St. Marylebone, nothing being known of her previous history beyond the fact that she had been married, and had not lived on amicable terms with her husband.

On dissection, the right kidney was found in the right iliac fossa, below the cæcum, and received its artery from the right iliac, close to the aorta. The left kidney was in the pelvis, resting on the sacrum, and the origin of the pyriform muscle. An artery which arose from the aorta, at its bifurcation, entered its upper end; another, of larger size, penetrating the gland, in the usual situation, being derived from the internal iliac.

Notwithstanding the unusual malposition of the kidneys, the renal capsules were in their normal situation; a fact, which appears to the author to countenance the views of Mr. Gulliver, as to the function of the latter organs. From that gentleman's observations, it would appear that the renal capsules secrete a peculiar matter, which may be found in the veins; from which it would follow, that these organs are glands to which the veins serve as ducts. The uterus and Fallopian tubes were entirely wanting, and the vagina was represented by a cul de sac, half an inch in depth. The right ovary was healthy, but the left was converted into a fibrous body, of an irregular globular shape. The paper was illustrated by a preparation and drawing of the genito-urinary organs.

MEDICAL SOCIETY OF LONDON.

Monday, May 17, 1841.

Dr. CLUTTERBUCK, President.

CHLOROSIS.

A PAPER was read on this subject from the pen of Dr. Botanni, of Milan. We are not aware that anything novel was advanced in reference to the general character or causes of the affection. The chief point of the paper consisted in the division of the affection into primary and secondary; the first consisting of those cases in which the patient had never menstruated; the second of those in which the catamenia had occurred once, or more frequently, and been stopped afterwards by some accidental cause. In the first class of cases the author considers that the seat of the disease is in the following

five principal organs—the liver, the alimentary canal, the lymphatic system, but principally the mesenteric glands, the heart, and the womb. Tomasini had entered minutely into an account and explanation of this opinion; and, indeed, if we examined a girl of about sixteen years of age, suffering from chlorosis, and who had never menstruated, we generally found, in the first place, the liver to be enlarged, consequent upon the obstruction in the uterus; the alimentary canal was in an inflammatory state, which was proved by a certain heaviness about the stomach, by pain on pressure, by want of appetite, a whitish tongue, and frequent attacks of flatulency; the lymphatic vessels, but chiefly the mesenteric glands, were in a state of obstruction, consequent upon the imperfect formation of chyle; there was generally a slight inflammation of the endocardium, as was proved by the strong palpitations and heavings in the region of the heart; and by a difficult respiration, particularly after ascending a flight of stairs, or from any other slight excitation of the chest. The womb appeared to be smaller and harder than it ought to be; sometimes it was contracted, and supplied with little blood; so that if the physician were, at this period, to institute an examination by the speculum uteri, the mouth of the womb would be found paler than was natural to a state of health.

In the secondary chlorosis, the womb, on the contrary, was always affected with enlargement, preternatural redness, and congestion; the stomach, the liver, and the brain, were also usually affected in this class of patients: but the unhealthy state of these organs depended on an increased supply of blood, and might be easily removed. The symptoms of the secondary chlorosis were neither so striking nor so stubborn as those of the first.

In comparing the primitive with the secondary chlorosis, it was clearly to be seen that the latter form of the complaint might be easily cured without any fear of calling forth other diseases; whilst the former lasted a long time, was difficult of cure, might excite other dangerous diseases, and might sometimes terminate fatally.

Regarding the treatment, the author remarks that all the symptoms of the primitive kind of chlorosis are indicative of a chachectic state of the system; the duty of the physician was, therefore, in the first place, to restore the powers of digestion; and when this was effected, and the strength improved, while the uterine function had not yet been excited, some remedies to attain this object were to be applied.

The treatment of primitive chlorosis as followed in Italy was very simple; the physician first tried to remove all the still existing exciting causes, such as "fright, love affairs, too tight garments, &c.;" and then prescribed a purgative of moderate power, such as the castor-oil in ounce doses: this, also, was of service in removing worms, which were frequently present in this disease. The patient took no physic on the second day, but merely took care of her diet, and avoided spirituous drinks. On the third day the oil was again administered; the two following days no medicine was taken. On the sixth day bitter and purgative medicines were administered; among the chief of which were rhubarb, dandelion, and "cichoreum." A combination of these was a favourite medicine with the Italians. The bitters were continued for a month, at intervals; the doses being regulated according to their effects, and the age and constitution of the patient. At the expiration of that time, the appetite had generally become improved, and the digestion better. The use of other bitter remedies was now commenced; such as a combination of extract of aloes, and extract of trifolium fibrinum, in doses of one grain of the former and two of the latter every hour. The patient was advised to take long walks, even to great fatigue; to ride on horseback; and in the evening after walking in the day, she must take a very warm foot-bath, rub her feet very dry, and retire to rest without any supper, or to have, at most, a little weak soup. After pursuing this plan for forty days, the state of the patient was generally much improved, the complexion was clearer, the palpitation diminished, the pulse fuller, the dejection good, and, in some instances, the menstruation had appeared; if this had not occurred, however, some preparation of iron was administered, in small doses, five or six times a-day; the walkings and the foot-baths being still continued. If the catamenia were still absent, and the patient complains of pain and heaviness in the lower part of the abdomen, this was the proper time to apply a dozen leeches to the genital organs.

The diet might now be a little more stimulating, and an increased quantity of wine and water be allowed with the dinner. If, notwithstanding all these means, the catamenia did not appear, the author strongly recommends the use of the oil of cajeput in doses of two minims, with a small quantity of bitter extract, to form them into a pill, one of which was to be taken every two hours. This remedy was to be persevered in for a week; and if it failed of success, injections of diluted liquor ammonia were to be made into the vagina, and after this a blister to be placed on each mamma: by these means the womb was much excited, and brought into action.

The cure of the secondary chlorosis was not so difficult as was the primary. After the use of some bitter purging remedies, foot-baths were resorted to, and leeches placed several times in succession upon the

genitals. After this some clysters were given, a suitable diet prescribed, and walking or other exercise enjoined.

Notwithstanding all this, however, it might happen that, in both kinds of chlorosis, the efforts of the physician were of no avail; and then, according to Hippocrates, marriage should be resorted to.

A discussion of some length followed on chlorosis, but nothing novel was elicited.

UNIVERSITY COLLEGE HOSPITAL.

FRACTURE OF THE CORACOID PROCESS OF THE SCAPULA.

M. G., aged 32, a milk-woman, of stout and muscular conformation, was admitted, at eight o'clock on the morning of the 17th of April, under the care of Mr. Liston. She had been thrown from a cart, in the neighbourhood of Hampstead, from which she had received various injuries. She states that she fell on her right side, on a Macadamised road. A butter-churn which she had with her fell at the same time; but as she was rendered insensible by the accident, she cannot give any particular account of the precise mode in which she fell.

On examination, there was found an extensive lacerated wound of the right side of the forehead and cheek, nearly surrounding the eyelids, which were almost insulated from the rest of the face. Parts of the frontal and malar bones were denuded. She made no complaint of any other injuries, except some bruises. The wound was immediately cleansed from dirt, the flaps carefully replaced, and the lids retained, in connection with the other parts, by a few points of suture and strips of the isinglass plaster; fomentations were applied also to the part.

In the course of a few hours she complained of pain in the right arm and shoulder; these were accordingly examined. The motions of the arm were not impaired; she could raise her hand to her head without difficulty: there was neither deformity nor flattening of the shoulder; the clavicle, acromion, and head of the humerus were entire; but on attempting to grasp the coracoid process, while the arm was freely moved up and down, a looseness and crepitation could be distinctly felt, and a grating was also perceptible in the axilla. The arm was secured to the side by means of the application of a bandage and sling. Fomentations were applied to the shoulder, in which, however, very little swelling took place; there was only a little pain, which was increased by motion. The wounds of the face suppurated freely through part of their extent, and by the 4th of May had cicatrised completely.

5. She was discharged cured to-day, the fracture appearing to be completely consolidated.

FRACTURE OF THE ACROMION PROCESS OF THE SCAPULA.

J. D., an Irish bricklayer's labourer, applied as an out-patient on the 12th of May, complaining of pain in the shoulder, and inability to use the left arm. These symptoms he attributed to an accident which had occurred on the previous day, when he fell from a scaffolding at a considerable height, on the right side, and some planks falling after him struck the point of the left shoulder. On examination the left shoulder was found to be obviously flattened, and the arm somewhat lengthened, but he possessed the power of raising the hand and arm to the head with no more difficulty than a simple bruise might have occasioned.

The clavicle and spine of the scapula could be traced entire, but on pushing up the elbow a crepitus was felt over the acromion, and on depressing the arm again, a considerable separation between the fractured portions of the bone could be detected. The apparatus of Desault for fractured clavicle was ordered, and speedy relief followed its application.

GUY'S HOSPITAL.

To the Editor of THE LANCET.

SIR:—"FAIR PLAY" does not rebut at all my attack regarding the total want of lectures on comparative anatomy, but goes to morbid, where his defence is very little. But I am glad to say that your kindness in publishing my letter has bestirred the authorities, notices being put up that we are now to have instruction in those branches; and I hope that those who come after me in the "walking of the hospital," will have them at a proper time.

As regards Mr. King's popularity, I can state that it is fearful that the quantity of pupils attending his summer courses will be so many, that it will not be requisite to pay a fee for them, but that they will be open to any one.

In "FAIR PLAY'S" conclusion I join, that Mr. Hilton is and deserves to be liked. In my letter Mr. H. was not mentioned with disrespect: I said that his lectures were well attended. I did not allude to any deficiency in other lectures, because the session was not finished; but I am sorry to say that many have been omitted. For it there is an apology—time having been lost on account of the death of Sir A. Cooper, to whom the lecturers in question were nearly related; but for the want of the instruction in one department, necessary for entering the army and navy medical department, and the omission of a greater part of another, neces-

sary for the welfare of our fellow-creatures, there can be no excuse. I have the honour to remain, Sir, your obedient servant,

A Hard-working Medical Student.

May 25, 1841.

*** Many other letters on these matters have reached us this week, but at present we have room only to insert what is now published.

TRANSACTIONS OF THE PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION.

To the Editor of The Lancet.

Sir:—I beg to be permitted, through the medium of your Journal, to point out a singular mistake which appears in the volume recently published of the "Transactions of the Provincial Medical and Surgical Association," involving the accuracy of the Registrar-General's first annual report. In an article on the medical topography of Shrewsbury (p. 329), there occurs the following paragraph:—

"This disease (small-pox) prevailed in an epidemic form in July and August, 1837, and is mentioned as such in the registration tables; but the numbers of the sexes as there given, *thirty-five males, six females, are incorrect;* the real numbers which I have copied from the parochial registrars being twenty-four males and twenty females."

Now, a single glance at the heading of the columns from which he quotes, might have satisfied the learned writer that the numbers *thirty-five* and *six* are not distinguished according to sex, but bear reference respectively to the *two quarters of the year*, in which these cases of small-pox were registered; but instead of pausing for a moment, to reconcile, if possible, the apparent discrepancy, he rushes with heedless precipitation to the inference, that the report, as a matter of course, must be wrong. The paper is well written, and, in other respects, judicious; but I would humbly impress on the author the necessity of exercising for the future a little more patience in his investigations. Assuredly it is not safe to treat other men's figures with such a want of ceremony. There still remains a trifling difference, which a careful revision of his data will doubtless enable him to rectify. I have the honour to be, Sir, your obedient servant,

John Angus.

Upper Charlotte street, London,
May 14, 1841.

UNIVERSITY OF LONDON.

A resolution of much importance to medical students was passed at the last meeting of the senate of the University of London. It is to the following effect. Candidates who commenced their professional studies in or before January, 1839, shall be admitted to the examination for the degree of bachelor of medicine without passing the matriculation examination. By *medical studies* is meant not merely the commencement of lectures, but also the having entered the profession as apprentices.

We observe it stated, in paragraphs which have appeared in some of the London newspapers, that the late "Editor of the *Times*" died from the effects of an operation in which Mr. Liston was engaged. This statement is untrue. Mr. Liston did not even see Mr. Barnes during the illness from which he died. The matter, in a professional point of view, is of little consequence; but the system of circulating paragraphs in the newspapers with respect to professional men, or their affairs, whether to injure them or to puff them, is deserving of the highest reprobation.

BOOKS RECEIVED.

A Treatise on the Medicinal Leech: containing Remarks on the History, Diseases, and Management of them, together with the Observations on Sanguisuction. By John Hudson and Son. London: Simpkin and Co. 1841. 12mo, pp. 106.

TO CORRESPONDENTS.

The communication from *Mr. Hilles* has been received.

Oxoniensis. We fear that no operation would offer a prospect of relief to our correspondent, as far as we can judge from the brief detail of his case. We should consider a well-adjusted bandage the best method of management.

Communications have been received from *Mr. Smethurst; Mr. Clark; A Reader of the Lancet; Mr. Poett.*

Mr. Moor's paper shall be published in an early Number.

Mr. Young's pamphlet and note have been received.

Mr. Hiley's paper on the medical botany of Halifax has come to hand.

Mr. Barlow's "observations" shall be published in an early Number of our Journal.

Dr. Browne's letter is in type; but we are obliged to defer it until next week for want of space.

The letter of *Honestas* is in type, and is deferred only from want of space.

Showing the No. of Deaths from all Causes, Registered in the 5 Weeks, ending Saturday, May 8, 1841.

Causes of Death.	April 4 to 10	April 11 to 17	May 18 to 24	May 25 to M. 1	May 2 to 8	Weekly Av. 1838-40, (corrected.)
Small-Pox	23	18	17	21	17	36
Measles	5	3	3	11	15	24
Scarlatina	11	3	9	9	8	38
Hooping-Cough	53	42	61	40	44	28
Croup	11	9	8	9	4	7
Thrush	5	4	3	5	3	5
Diarrhœa	5	8	5	6	3	8
Dysentery	1	3	1	1	1	2
Cholera	....	....	....	....	....	1
Influenza	13	9	8	3	4	1
Typhus	17	21	20	24	9	40
Erysipelas	6	3	4	5	4	7
Syphilis	....	2	....	....	....	1
Hydrophobia	....	....	....	....	....	.1
TOTAL	130	125	139	139	110	204
Cephalitis	5	14	16	10	10	11
Hydrocephalus	38	36	40	40	31	34
Apoplexy	16	22	18	19	15	18
Paralysis	5	20	11	11	17	15
Convulsions	47	44	54	74	52	60
Epilepsy	3	4	5	4	5	4
Insanity	....	1	....	1	2	1
Delirium Tremens	1	1	....	1	2	1
Dis. of Brain, &c.	9	10	8	11	14	7
TOTAL	124	152	161	180	148	151
Quinsey	1	2	....	2	1	1
Bronchitis	14	15	13	19	8	9
Pleurisy	4	1	....	1	1	2
Pneumonia	53	59	58	61	68	72
Hydrothorax	4	5	4	4	3	5
Asthma	17	24	25	24	18	21
Consumption	139	171	174	153	155	141
Dis. of Lungs, &c.	15	17	20	13	13	12
TOTAL	251	294	294	279	269	266
Pericarditis	....	2	....	1	....	.6
Aneurism	....	....	....	....	....	.6
Dis. of Heart, &c.	20	21	22	20	15	17
TOTAL	20	23	22	21	15	18
Teething	15	16	15	15	12	17
Gastri.—Enteritis	12	12	24	19	11	18
Peritonitis	3	1	1	2	1	2
Tabes Mesenterica	2	1	6	3	5	4
Ascites	1	....	....	1	....	1
Ulceration	2	1	4	....	....	1
Hernia	1	2	2	2	1	2
Colic or Ileus	3	1	....	3	1	1
Dis. of Stomach	1	4	4	6	5	4
Hepatitis	1	....	2	2	....	1
Jaundice	1	3	3	2	....	2
Dis. of Liver, &c.	3	5	8	15	6	7
TOTAL	45	46	69	70	42	69
Nephritis	....	....	....	1	1	.4
Diabetes	....	....	....	....	....	.3
Stone	1	1	....	....	1	.5
Stricture	....	1	....	....	1	.4
Dis. Kidneys, &c.	3	3	7	11	2	2.4
TOTAL	4	5	7	11	3	4

Causes of Death.	April 4 to 10	April 11 to 17	May 18 to 24	May 25 to M. 1	May 2 to 8	Weekly Av. 1838-40, (corrected.)
Childbed	5	4	5	5	6	7
Ovarian Dropsy	....	....	2	....	1	.2
Dis. of Uterus, &c.	5	2	3	3	2	2
TOTAL	10	6	10	8	9	9
Rheumatism	1	0	1	....	2	3
Dis. of Joints, &c.	4	1	....	4	3	3
TOTAL	5	7	1	4	5	6
Ulcer	1	....	....	....	....	.4
Fistula	....	....	....	....	....	.4
Dis. of Skin, &c.	2	....	....	....	....	.3
TOTAL	3	....	....	....	....	1
Inflammation	2	5	4	8	7	12
Hæmorrhage	1	3	3	5	4	3
Dropsy	25	32	41	44	31	34
Abscess	1	5	3	2	....	4
Mortification	6	3	3	2	6	5
Scrofula	1	2	6	3	3	2
Carcinoma	7	10	6	10	9	7
Tumour	2	3	2	....	2	2
Gout	5	....	1	2	2	1
Atrophy	6	10	5	5	2	4
Debility	27	19	18	24	19	15
Malformations	1	3	....	....	....	1
Sudden Deaths	12	17	14	10	15	13
TOTAL	96	112	106	115	109	103
Old Age	45	57	69	59	63	71
Intemperance	1	....	1	....	3	.6
Privation	....	....	2	....	....	.4
Violent Deaths	23	18	23	15	20	21
TOTAL	24	18	26	15	23	25
Causes not Spec.	3	3	2	5	1	8
Deaths, all Causes	780	848	906	907	790	926
No. of Week	14	15	16	17	18	....

1840—41.	Ages. 0 to 15	15 to 60	60 & upwards
April 4th to 10th	354	209	156
„ 11th to 17th	363	311	173
„ 18th to 24th	401	329	176
„ 25th to May 1st	391	336	180
May 2nd to 8th	345	278	166
Weekly Average, 1838—40	438	314	171

TEMPERATURE	High.	Low.	D. Mean.
Week ending Apr. 10	56°	38°	48°
„ 17	57	37	46
„ 24	59	40	48
„ May 1	72	44	59
„ 8	65	50	58

	Estimated Pop. 1840.	April 4 to 10.	April 11 to 17.	April 18 to 24.	April 25 to May 1.	May 2 to 8.	Weekly Av 1838-40
West Districts	308,921	105	141	131	141	125	139
North Districts	414,458	132	162	162	171	143	163
Central Districts	369,722	159	168	197	194	168	190
East Districts	411,634	183	161	283	178	167	211
South Districts	436,265	201	216	213	223	187	223
	1,955,000	780	848	986	907	790	926